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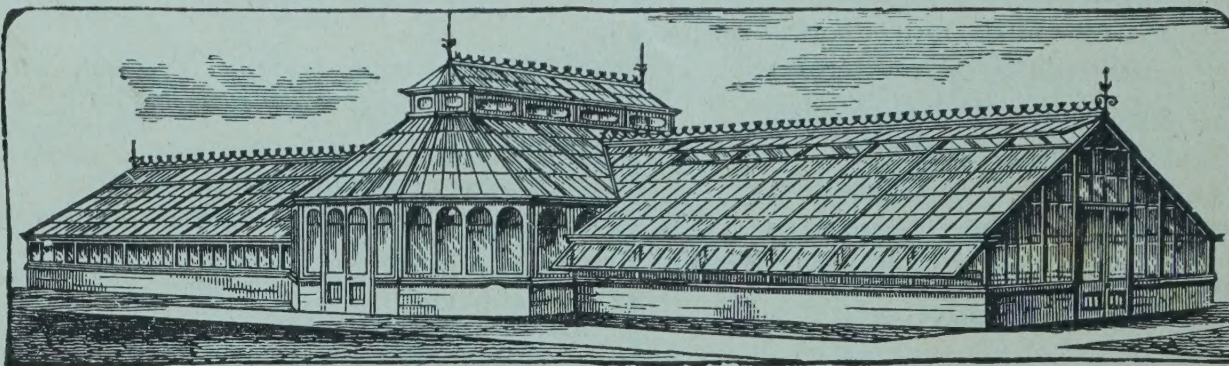
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THE GARDEN.

No. 2120.—VOL. LXXVI.

JULY 6, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Apples Damaged by Hail.—We have received from a correspondent at Grimsby some Apples that were damaged by a hailstorm there on the 19th ult. The fruits were very badly bruised, and in many instances pieces were cut clean out. Our correspondent states that fully 90 per cent. of the fruits on the trees were damaged in this way.

The Spanish Broom.—This handsome Broom, botanically known as *Spartium junceum*, does not appear to be fully appreciated, for one sees it planted less frequently than the various Brooms that flower earlier in the year. It is well adapted for planting on poor and stony soils. The large golden flowers appear early in July, and are generally at their best towards the end of that month and early August.

Geranium Fremontii.—This is a neat, hardy Geranium, or Crane's-bill, from Colorado, which is doing well, and is quite hardy, after having been well tested for several years. It does not grow very rapidly, and makes a neat plant about a foot high, with purplish flowers. In its general appearance and colour it is unlike most of the other hardy Crane's-bills. On a rather dry border it thrives excellently, and is generally appreciated.

Abelia floribunda.—This charming shrub is not too frequently seen in the open in Scotland, or, for that matter, in all but a few favoured parts of England, so that it was with much pleasure that we came across it doing quite well in the garden of Mr. Carrick-Buchanan, Corsewall, Stranraer. Corsewall is situated in one of the mildest districts in Scotland. Here *Abelia floribunda* not only stands the winters well, but blooms freely, giving good clusters of its purple flowers.

Disbudding Roses.—There is an inclination on the part of many Roses this year to produce an over-abundance of bloom. By the removal of side buds the central bud has a much better chance of reaching perfection. Disbudding is regularly practised by Rose exhibitors: but in a year like this, when standard and bush Roses endeavour to produce six blooms when there is only room for one, the thinning-out of flower-buds is much to be commended, even among Roses grown for garden effect.

Cordyline (*Dracæna*) stricta.—A correspondent sends us from North Cornwall flowers and leaves of this useful Australian plant, with the interesting information that a plant has been flowering outside 7 feet in height. It is only in Cornwall and similarly favoured localities that it is possible to cultivate *Cordyline stricta* out of doors. In most gardens where it is grown the plant finds a place in a cool

greenhouse, while plants will live for many years in the window of a dwelling-house provided it gets a fair amount of light. The small, light blue flowers are freely produced in large panicles. The green leaves are long and narrow.

Campanula persicifolia Moerheimi.—Of the numerous varieties of *Campanula persicifolia*, this is undoubtedly one of the best of the set, and is equally valuable either as a border plant or for producing a quantity of long-stemmed flowers for cutting. The flowers are of the purest white, and are arranged in the usual campanulate form. It gives an impressive and sumptuous effect when liberally planted, and with its lasting qualities signal it out as a plant of distinct merit. It flowers during June and July, and is readily increased by division.

A Pretty Flowering Plant for the Greenhouse. There is just now in the greenhouse at Kew a double form of the Feverfew bearing the name of *Chrysanthemum Parthenium flora-plena*, which is a decidedly useful subject for decorative purposes at this season. The plants, which are freely branched, are from 18 inches to 2 feet in height, and each bears a profusion of pure white double, rosette-like blossoms a little over half an inch in diameter. A plant of easy culture, it is well worthy of a note from its distinct character and profusion of blossoms. From a decorative standpoint its effectiveness is heightened when associated with bright-coloured subjects.

A Showy Greenhouse Plant.—The greenhouse at Kew is famous for its groups of showy flowering and foliage plants, for, visit it whenever one will, there is always much to admire and little to criticise adversely. On the occasion of a recent visit we were charmed with two large groups of varieties of *Jacobinia magnifica*, which were composed of exceedingly well-grown and well-flowered plants. The varieties in question were *carnea* and *pohliana*, and we commend them to the attention of those people who have to keep a conservatory gay. Too often these plants are allowed to become leggy, but owing to careful cultivation the Kew plants were but from 12 inches to 18 inches high, with many strong branches, each one terminated with a fine inflorescence of showy red flowers. By growing in comparatively small pots it is necessary to feed such plants well if they are to be flowered in the best condition; therefore care must be taken to avoid anything in the nature of a check from the time the cuttings are rooted until the plants flower. By rooting cuttings at intervals and paying attention to stopping, batches of plants may be obtained to last over a considerable period. The effect of one of the groups at Kew is assisted by the help of a few plants of *Marguerite* Mrs. F. K. Sander.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rubus deliciosus.—Last year we had a little controversy, as I maintained that *Rubus deliciosus* seldom produced seeds, and I have just seen, in the issue for June 2, 1900, page 396, my remarks mentioning my then experience. I have brought here two seedlings raised that year. In 1899 there were letters from those who had for the first time obtained seeds, I am sure; but, unfortunately, that volume is one of only a few volumes of *THE GARDEN* which I have not got, so I could not refer to it. The seeds germinated very well in the open ground, whereas some sown in a pot were much later in germinating. The scarcity with which seed is produced is most remarkable. — J. R. DROOP, *Misbrooks, Capel, Surrey.*

Rose Conrad F. Meyer.—In *THE GARDEN* of June 8 there was an article in praise of Rose Blanc Double de Coubert, with which I fully agree. I should like to say a word myself for that beautiful *Rugosa* Conrad F. Meyer. I have large bushes of it in front of a shrubbery, where they show up well against the green background. About the middle of May it began to bloom, and it is still in flower (June 24). I am able to cut great bunches of the beautiful pink blooms on long, strong stems, which are so easy to arrange in water. The blooms are nearly as full and well shaped as *La France*, and almost as sweet-scented, which says a great deal. It is already throwing up great, strong shoots, 4 feet to 6 feet long, for next year. It ought to be a good hedge Rose, though I have not tried it so myself. In the autumn it blooms again almost as freely as in early summer. Its only drawback is its thorny stems.—AN ESSEX READER.

A Beautiful Bellflower (*Symphyandra Wanneri*).—One may go a long way without coming across *Symphyandra Wanneri*, sometimes called *Campanula Wanneri*, and I was pleased to see it at the Chelsea Exhibition, where it was shown by Messrs. Artindale. This Transylvanian plant has been for some time in cultivation, but is by no means plentiful. Even seeds are seldom offered, and are absent from many good catalogues of dealers in such out-of-the-way things. It is usually recognised as a biennial, and appears as such in most works of reference. I am not sure, however, that this is an invariable habit, and from what I have learned I imagine that it is a perennial in a few British gardens. Perhaps some of your readers who have had it may clear up the point. With me it proved a biennial when I grew it some years ago, although its sister flower, *S. pendula*, is a true perennial. *S. Wanneri* and *S. Hofmannii* were, however, only biennials. *S. Wanneri* was very well shown on the occasion mentioned, and it is a really pretty plant among the many beautiful ones of the race of Bellflowers, of which the *Symphyandras* form a section. About six inches high and of good habit of growth, it is a pretty rock plant with its pleasing blue flowers.

Anemone palmata.—Some discussion on the difficulty of establishing the handsome *Anemone palmata* and its variety *alba* would probably be useful to many who experience some trouble with it. It is within the knowledge of the writer that there are many who have tried this *Anemone* frequently, and have procured roots at the usual time when their bulbs are received, but who, after repeated trials, have to admit that they cannot

establish it. There are a few gardens in which *A. palmata* is almost a weed; and the writer has in view one in which it seems to strive to take possession, not unsuccessfully, of two borders in a Northern garden. But plants taken from there are difficult to induce to grow, even if removed at times when they are growing freely enough, both before and after flowering. This is a very beautiful Windflower, especially in its white form, *alba*, which is the cause of this note being written, from the fact of the writer coming across a nice plant at the foot of a wall in a Scottish garden and in flower. Growing to about a foot high and showing admirably among other plants, *A. palmata alba* was very pretty there. The question is, why does it give so much trouble? It has ways of its own and thrives admirably in some places, but is a failure in others.—S. A.

A Beautiful Australian Shrub.—*Ozothamnus rosmarinifolius*, a charming Australian shrub, now called *Helichrysum rosmarinifolium*, but best known in gardens as *Ozothamnus rosmarinifolius*, is in full flower here, having survived for some five years or so on a south-west wall, partly sheltered from the colder winds by a bay window. It is flowering very well this season, and has quite recovered the cutting-back it received from the winter of 1910-11, when it was injured but not cut to the ground. Unfortunately, it is only suited for the warmer parts of the country, or for selected situations on walls. The writer has nowhere seen it so fine as in Ireland; but it is rather curious that in gardens which are in warmer parts than this, *O. rosmarinifolius* cannot be retained for long. Probably the soil and exact situation afforded it have a good deal to do with the matter. Here it gets full sun, a dry, rather stony soil and the fullest drainage, and a high, open position. It has never had any protection in winter. It is very beautiful with its neat foliage almost covered with thousands of its little white flowers.—S. ARNOTT, *Sunnymead, Dumfries.* [We have seen this shrub growing and flowering freely in clay soil in Essex in the open garden. It is evidently hardier than is generally supposed, unless there are two varieties.—ED.]

Garden Pests.—I have lately been trying some simple experiments for the discomfiture or destruction of such common enemies as sparrows and slugs, and I send you a brief account for publication in the hope that it may be of some service to those who, like myself, may be described as "amateur gardeners." During April I sowed afresh some thin patches on my tennis lawn with the best grass seed, covering them with netting. The usual result followed: the sparrows took the seed through the meshes, so that before the month was out I had scarcely a sprout of grass as a reward for my trouble. During the first week in May I sowed the patches afresh, covering them this time alternately with soot and Sanitas Powder, but without netting. The month being dry as a whole, both succeeded admirably; the sparrows were balked and the seed germinated. I tried the same experiment on putting out my seedlings in the flower-borders, in the hope of a similar result with slugs. Here the advantage was decidedly with the powder, as the showers soon washed away the soot, while the powder seemed to withstand them more effectively. Whatever the cause was—whether it was the more powerful smell of the powder that remained or not I cannot say—the plants around which I placed it were not eaten, and are now looking strong and healthy. I found it easier to sprinkle the powder on the spot intended for the plant, next to make the hole and insert the plant,

This powder is inexpensive if bought by the keg, and goes a long way.—A CONSTANT READER.

Exhibiting Daffodils.—I see Mr. W. A. Watts, June 22, page 314, is again on the warpath in his campaign against what he considers unfair ways of exhibiting Daffodils, and really I must say that this time, at any rate, he makes out rather a poor case. He instances an otherwise normal flower which had a refractory petal supported artificially. Well, if the flower had been normal it would not have had the refractory petal, and therefore I contend that the paper support was an aid to showing the flower in its true and correct form. I see no cause for "irritation" (or something stronger) in such a simple device. I suppose Mr. Watts would have stuck up the flower just as it was. I should not go to look at it! I am sorry to differ with such a keen florist and charming personality as Mr. Watts.—F. HERBERT CHAPMAN.

—Two letters in *THE GARDEN* of June 29, but no names. Why no names? "A Small Exhibitor" tells us that faking is improving to bad flowers; I do not grudge him this satisfaction! He speaks of "artistic" faking, protests that it is "above board," and commends it as a means by which he and other small exhibitors with bad flowers can gain some advantage over the big men. With good flowers is this any recommendation? I have seen far more faking among the big men than the little ones! Surely, too, when he talks of *débutantes* appearing at a Levée he is giving his fancy too free a rein. Then there is "A. C. C. R.'s" letter. Again, why only initials? He would put words into my mouth that I have never spoken, and pays but a poor compliment to judges in general. Certainly I would advise "A. C. C. R." to follow a lead if it is a good one, but do not follow "A Small Exhibitor" with his doubtful methods. I assure him that the public want to see good flowers, shown as grown and tastefully arranged. They do not want to see "moderate or worse" blooms faked into shape in order to enable "A Small Exhibitor," or even a large one, to gain prizes against those who show their flowers honestly.—W. A. WATTS.

The Cherokee Rose.—I have a word to add to the paragraph on this subject in the issue of *THE GARDEN* of last week, page 326. This Eastern Asiatic Chinese and Japanese Rose was long ago introduced into the South-Eastern States of North America, and soon became so thoroughly naturalised in a wild condition that botanists of upwards of a century ago took it to be a native species. The history of its introduction into North America is not on record, so far as my investigations go; but André Michaux, in his "*Flora Boreali-Americana*," Vol. I., page 295 (1803), described it, under the name of *R. lavigata*, as a native of America. At an earlier period (1759) it reached this country, and appeared in the second edition of Aiton's "*Hortus Kewensis*" (1810-1813) as *Rosa sinica*, a name by which it was then generally known here. This name was given to a Chinese Rose by Linnæus; but Sereno Watson, a comparatively recent monographer of the North American Roses, arrived at the conclusion that Linnæus' *R. sinica* is the same as his *R. indica*. Hence there is no choice, and we must use the name given by Michaux. *Rosa lavigata* demands a more sunny climate than the British, and reaches perfection in the Mediterranean region, in the Canary Islands and in the South-Eastern States of North America. I have seen no wild specimens of this Rose from the Himalayas.—W. BOTTING HEMSLEY.

The Seeding of Daffodils.—I notice the Rev. J. Jacob wrote recently on the seeding of Daffodils this season. The outstanding and remarkable feature noticeable here is the scanty quantity of seed produced in each pod. Pods have swollen up as usual, but in a great many cases what looks like a well-filled pod turns out to contain only about half-a-dozen seeds. I wonder if this has been the experience of others, and what the explanation may be.—F. HERBERT CHAPMAN, *Rye*.

Primula Unique.—In your issue of June 22, on page 313, we note a short article respecting *Primula Unique*. It does not appear to be known by you that this *Primula* was raised simultaneously by ourselves and Messrs. Veitch from the same cross. The Lissadell hybrid was raised about the same time, also from the same parentage, but differs slightly in colour. The plant raised by Messrs. Veitch and the hybrid raised by ourselves, however, are, we believe, quite identical.—BEES, LIMITED.

Zonal Pelargoniums.—The correspondence in *THE GARDEN*, pages 290, June 8, and 302, June 15, respectively, is very interesting to lovers of these flowers. I am quite sure that they are gaining favour rapidly year by year. We have some very beautiful varieties to grow now, and new ones are being introduced every year. I think the true colour of the flowers of the variety *Hall Caine* is cherry red with a faint suffusion of salmon in it. Personally, I do not care for second trusses of flowers borne on the first. The variety *Phyllis* is one of the very best, both as regards flowers and habit of growth. Another, *J. M. Barrie* (cerise), is in the front rank; *Mrs. G. Cadbury* is a lovely salmon, and *Barbara Hope* a grand salmon pink. There is a decided orange tint in the flowers of the newer doubles; *Golden Glory*, *Fascinator* and *M. A. Arckemar* should find a place in every greenhouse. *Dagata*, a double rosy mauve, has a fine habit and constitution and bears immense trusses. Some readers may not know that *Paul Crampel* is a splendid autumn and winter bloomer.—G. G.

Euphorbia Wulfenii.—I send you a photograph of *Euphorbia Wulfenii*, which is flowering with me for the first time. It is 4 feet high and has sixty-two flower-heads, most of which are about a foot long and nine inches wide. It has been growing on a mound of light, sandy loam in a sheltered but sunny position. It was given me by Miss Jekyll about four years ago, and was then probably two or three years old. This year it has been a very striking plant, the great size of the yellow-green flower-panicles, densely packed with the cup-shaped bracts and flower-heads, forming a mass of compact inflorescence rarely seen in a plant of this size. During its growth I watered it pretty regularly, but through the drought of last summer it had no attention, which probably gave it

the conditions of heat and aridity which it likes.—ALFRED R. WALLACE, *Old Orchard, Broadstone, Dorset*. [An illustration of *Euphorbia Wulfenii* in Miss Jekyll's garden appeared in *THE GARDEN*, January 22, 1910. It is an interesting Spurge that has been the subject of much correspondence in our pages. Unfortunately, the photograph of the remarkable plant grown by our correspondent does not lend itself to reproduction.—ED.]

FORTHCOMING EVENTS.

July 8.—United Horticultural Benefit and Provident Society's Committee Meeting.

July 9.—National Rose Society's Show at Regent's Park. National Sweet Pea Society's

THE ROCK AND WATER GARDEN.

DIANTHUS NEGLECTUS.

OF the many alpine members of the *Dianthus* family, *D. neglectus* is one of the very best, growing only 3 inches or 4 inches high (even when in flower), and with narrow, tufted, grass-like foliage. It is a particularly dainty little plant for a choice place in the rock garden, in gritty soil composed of loam, leaf-mould, sand and broken brick in about equal proportions. In June the hummocks of minute leaves are studded with lovely rich carmine flowers of the most intense shade, about one inch across, while the under side of each petal is of a particularly pleasing buff colour. This is apparent as the flowers close at evening. Like most of the *Dianthus* family, this species crosses very readily with any others that may be near it, and unless protected it is generally impossible to secure pure seed.

Very often when raising *D. neglectus* from bought seed the produce is far from satisfactory, doubtless due to the foregoing fact. Cuttings can, however, be taken at this season, and pieces an inch or so long strike fairly readily in a close frame. I find full sun is the best position in my garden for this beautiful Pink, while with me it also thrives in the moraine. Unlike many of the higher alpine Pinks, it seems quite devoid of that bad habit of "going off" suddenly—for no apparent reason—it being really a very good perennial. Everyone who has a choice place in the rock garden—perhaps associated with the dwarf and slower-growing Saxifrages—should try this lovely Glacier Pink. R. A. M.

A FREE-GROWING ANEMONE.

(*A. BLANDA SCYTHINICA*.)

FOR those who cannot obtain, or retain when obtained, *Ranunculus anemonoides*, there is an excellent substitute in this *Anemone*, for it is cheap to buy, easily grown, and in its satiny white purity of full expansion very much like the more difficult plant. But

when closed it shows its true nature, for the backs of the sepals are deep blue, as in the typical *A. blanda*, instead of flushed with rose as in the *Ranunculus*. Perhaps it is most beautiful when half expanded in the early morning, so that while the clear white interior is visible, the sapphire blue reverse is in evidence also. A free seeder, it soon spreads about in the rock garden or sunny border, and seems to come much more truly from seed than one would expect of such a bicolor variety. In fact, I have a belief—not founded on experience, however, for I have never grown it in an isolated position—that if it were not near the ordinary blue form, the seedlings would all be of



THE DWARF GLACIER PINK (*DIANTHUS NEGLECTUS*).

Show at Royal Horticultural Society's Hall, Westminster (two days). Wolverhampton Floral Fête (three days). Royal Scottish Arboreal Society's Exhibition at Cupar (four days).

July 10.—Torquay Sweet Pea Show. Heretford Rose Show. Elstree Flower Show. Bath Rose Show (two days). Beckenham Flower Show. East Anglian Horticultural Society's Meeting. Reigate Flower Show.

July 11.—Helensburgh Rose Show. West of Scotland Rose Show. Aylesbury Flower Show.

July 13.—Woking Sweet Pea Show. Purley Rose Show.

the variety *scythinica*. It is best to purchase and plant these tuberous *Anemones* as early as possible in late summer or early autumn, and, that done, to leave them alone and see that the young seedlings are not hoed off for the sake of tidiness, that bane of happy, well-meaning young seedlings in so many gardens.

E. A. BOWLES.

TREES AND SHRUBS.

FABIANA IMBRICATA.

AS 1866 and 1912 will always be remembered by horticulturists and botanists, so will 1851 and 1886 be always remembered, that of the former year as the first International Exhibition, and the latter date as that of the Colonial and Indian Exhibition at South Kensington. At both of these exhibitions, as well as at the intermediate ones, vegetable

in almost any soil, and is said to be readily increased by cuttings. I am induced to draw attention to this plant because of its success in my garden, as well as for its economic uses. About three years ago I planted one which at the time was about a foot or fourteen inches high; it has now grown to about six feet, with long, pendent, Heath-like branches crowded with small leaves and pure white flowers, which began to open at the end of April, lasting till the first week in June. The position is in front of a low wall and faces west; consequently it is protected from the east, as well as partially from the north and south. It is perfectly hardy here, and never has any artificial protection.

JOHN R. JACKSON.

Claremont, Lymington, Devon.

THE QUINCES.

ALTHOUGH Quince fruits are used to some extent for culinary purposes and the seeds are made use of by pharmacists on account of their mucilaginous

Cydonia japonica is also widely planted throughout the country, and is very popular for wall culture. The other three kinds are less generally grown.

Description of Species.

Cydonia cathayensis, a Chinese species, is rarely met with in this country. One of the best examples belongs to Canon Ellacombe, and is to be seen in his famous garden at Bitton Vicarage. A strong-growing bush, it may be recognised by its spiny branches, dark green leaves 4 inches or 5 inches long, and pink and white flowers, which are 1½ inches across. The fruits are bright green, 3 inches to 4 inches long and 2 inches in diameter.

C. japonica, the well-known Japanese Quince, is popular in the North of England for planting against cottage walls, where it is often known by no other name than "Japonica." In the South it forms a large bush in the open ground and flowers profusely. A very large example existed a few years ago in the at one time famous Wimbledon House Gardens. This specimen must have been upwards of twelve feet high and twenty feet through, and it always blossomed well. The most familiar colour of the flowers is bright red, but there are forms with dark red, white, striped, pink and yellowish blossoms. *Candicans*, white; *luteo-viridis*, greenish yellow; *cardinalis*, deep red; *princeps*, red; *sinaica*, deep crimson; and *sulphurea perfecta*, yellowish, are among the best. Although the greenish yellow fruits are usually thrown away when they fall, they may be made use of in a similar way to the fruits of the common Quince. The fact that *Cydonia japonica* forms a good hedge plant in some places does not appear to be generally recognised, but where an out-of-the-way hedge plant is required, many worse things might be selected.

C. Maulei.—This is another Japanese species which differs from the last-named by its dwarfer habit, rather smaller flowers and golden, fragrant fruit. Mature plants are rarely more than 2½ feet high and 3½ feet through. They are made up of numerous thin branches, on which the brick red flowers are borne with the greatest freedom. The fruits are deliciously fragrant, and are said to be the best of all the Quinces for making into jelly. The variety *alba* has whitish flowers, and the flowers of *atrosanguinea* and *superba* are of a rich, deep red hue. The last two varieties are specially worthy of note. *C. Maulei* is very hardy, and thrives as a bush in the North of England. It rarely fails to produce a profusion of blossoms.

C. sinensis is sometimes called the Chinese Quince. It is the most tender of all the kinds, and requires wall culture in most parts of the country. Growing into a large bush or small tree, it is identified by its large, oval leaves and solitary pink flowers, which are about one and a-half inches across. The fruits are very large, oval, and yellowish in colour. Good specimens may be 5 inches to 6 inches long and 3 inches to 4 inches in diameter.

C. vulgaris is too well known to require more than passing notice. Two well-marked kinds are found, one which bears Apple-shaped fruits and the other Pear-shaped fruits. In other respects the trees are identical. The fruits are very fragrant when ripe, and are used for flavouring purposes and for making into jelly. The native country to which the tree belongs is not known, but it is widely cultivated through Europe and other places.

D.



ANEMONE BLANDA SCYTHINICA. A DELIGHTFUL PLANT FOR ROCK GARDEN OR SUNNY BORDER.

products formed a considerable portion of the exhibits, and at their close went far towards the enrichment of the museums at Kew. It was in 1886 that *Fabiana imbricata* was introduced to notice in this country as a medicinal plant under the name of "Piche," the leaves having the reputation of possessing diuretic properties, and being useful in kidney affections, sciatica, rheumatic neuralgia and lumbago.

As is well known, the plant is a native of Chili, Peru and the Argentine, and belongs to the Natural Order Solanaceae, though from general appearance an ordinary observer would classify it with the Heaths (*Erica*). Considering that it was introduced to cultivation in this country so long ago as 1838, it is somewhat strange that one does not see it in gardens more frequently. Its spikes of pure white funnel-like flowers, borne in great profusion, together with the early season of flowering and the length of time it keeps in flower, are all strong recommendations for its more general cultivation, besides which the plant grows

properties, the various kinds cannot be considered of sufficient importance to include among valuable fruiting plants. Fortunately, however, they have an asset which warrants them a prominent position in the garden; therefore they are planted for this reason, and the fruit comes in as an extra product. The asset to which allusion is made is their free-flowering qualities and showy flowers, this being especially noticeable with the bush kinds. Altogether five species may be obtained. These are known under the generic name of *Cydonia*, although some people prefer to follow Linnæus and include them in the *Pyrus* family.

The cultivation of the Quinces offers no difficulties, except in the case of one species, which is not sufficiently hardy for outdoor culture in some parts of the South of England, and has to be provided with a position against a warm wall. The common Quince has been included in orchards in this country from an early date, and is well known as a small, round-headed Apple-like tree.

VIBURNUM PLICATUM.

FEW, if any, readers of THE GARDEN will dispute the assertion that this Japanese shrub is one of the six best deciduous flowering shrubs cultivated in our gardens. By botanists *V. plicatum* is classed as a form or variety of *V. tomentosum*, of which it is said to be the sterile form, though for garden purposes the two shrubs are quite distinct. The average height is from 4 feet to 6 feet or more. In most gardens it is quite hardy, though in the extreme North the protection of a wall is sometimes found desirable, while even in other parts it is worth attention, should wall space be ample, as it is such a delightful subject when in bloom. The flowering season is late May and early June, when the white clusters of flowers almost hide the foliage. These trusses or clusters are about three inches across, in shape resembling a slightly flattened ball. Perhaps the best effect is obtained by massing *Viburnum plicatum* along the front of a fairly wide shrubby border, or in a large bed with a background of tall shrubs or trees a short distance away. This and other members of the *Viburnum* family delight in a fairly rich loamy soil with no lack of moisture at the root. A. O.

FLOWER GARDEN.

SWEET PEA NOTES.

The Great Show.—On Tuesday and Wednesday of next week, the ninth and tenth days of the month, the National Sweet Pea Society will hold its twelfth exhibition, and it is anticipated by the powers that be that it will be superior in all respects to any of its predecessors. It is notable that the authorities of all annual institutions such as this invariably expect to advance, and if the meeting should fall a little short in some particular aspect, an excellent reason, over which no human being could possibly have control, is immediately forthcoming. This is just as it should be, since optimism is essential to success. The prospects of the show are indisputably good, and it is safe to prophesy that thousands of superb flowers will be exhibited, and that the competition in most of the classes will be keen. Let us hope that the tendency to coarseness which has crept into some of the exhibits in recent years will be conspicuous by its absence, and that if there are any such flowers shown, the judges will be down upon them like the proverbial "cartload of bricks." There was some coarseness at the "International," but it did not assist the exhibitors in the smallest degree, for the simple reason that the judges chosen for that great occasion were all for the perfect Sweet Pea.

Provincial Shows.—At all the horticultural gatherings in the provinces at the present time Sweet Peas play a part of considerable importance, and classes for them are numerous and have handsome trophies and valuable money prizes

allocated to them. Visitors to these shows look eagerly for the Sweet Peas, and criticise flowers with a keenness which proves conclusively the hold the flower now has on the public mind. Even at the smallest shows, designed and maintained practically for the cottage growers, classes are provided for the Queen of Annuals, and invariably the competition is strong, though in many instances the blooms do not attain to the standard of a "National." However, the interest is there, and the quality will undoubtedly steadily improve.

Watering.—In most gardens the plants will now demand immense supplies of water; but the fact must never be overlooked that it is easily

admirably grown that they possess the power to respond when called upon in this way.

Feeding.—Amateurs, generally speaking, require no encouragement to feed their plants; on the contrary, one often experiences the utmost difficulty in persuading them that it is exceedingly easy to overdo it. It is no uncommon thing to find a man who is convinced that manure is of infinitely more importance than cultivation, and that it is the simplest thing in the world to make a magnificent plant out of a wretchedly-grown apology by the use of special foods. Never were there greater errors. Those who would have the finest Sweet Peas must rely mainly upon mechanical cultivation of the soil. That feeding will restore a

plant from bad to good health, or make a weakling into a strong and handsome giant, is equally fallacious, and the sooner the facts are universally accepted, the earlier we shall see Sweet Peas splendidly grown in every garden in the country. By all means feed with a variety of suitable foods, but before doing so establish such a foundation as will ensure their perfect assimilation. Whatever is given must be on the weak side, and it must always be applied when the ground is pleasantly moist. These things have been said before, but they will bear repetition. HORACE J. WRIGHT.

NOTES ON THE POET'S NARCISSUS.

JUDGING from letters I sometimes receive, there is a growing feeling among those who are most interested in this section of the *Narcissus* family that a great many—too many—varieties are now on the market, and that not a few are so similar to one another that they ought to be bracketed together as "too-much-alike" varieties, as is done in the case of the Sweet Pea. I sympathise very much with my correspondents. Poets as we have them to-day are bewildering, and to be able to select the best for the purposes of the show-table and the best for the purposes of a garden is a task very much beyond my powers. I used to think the differences between florists' Tulips were hard to detect; but I am now beginning to think that it is child's play to differentiate a Mabel from

a Mrs. Collier compared with what it is to tell a Comus from a Spencer, and similarly with many others. I do not think I would have any difficulty if I went through my note-books of the past few years to make out a list of at least a hundred varieties; and as I think of this I wonder how many of them our greatest Poeticus experts could name correctly. I am asked to make a selection of some of the best, and also to say which have all-red eyes and which are "rimmed." To answer this last question first, I append a list of a certain number of the best known, and I have divided them into three groups—(1) the all-red solid eye, (2) the suffused red eye and (3) the rimmed eye. With but one or two exceptions the classification is the



A PROFUSELY-FLOWERED BUSH OF VIBURNUM TOMENTOSUM PLICATUM.

possible to give too much, and thus do far more harm than good. Efficient mulchings reduce the necessity for watering, and if material suitable for the purpose is not at command, the soil itself should be made to serve by incessant shallow hoeing. The hard water which most of us are forced to use is best poured into grips running down each side of the lines, these being filled as many times as may be deemed necessary or desirable. Occasional vigorous hosing during the evening will still do decided good, especially when they are given after intensely hot, sunny days or when a drying wind has been blowing. The length and strength of the stems improve with this treatment, provided, of course, that the plants have been so

result of my own observation, and it is not based on catalogue descriptions. The first group contains The Bride, Chaucer, Lycidas, Bard of Avon, Dresden, Acme, Poetorum and Sidney; the second, Muriel, Kestrel, Socrates, Virgil, Ovid, Epic, Ibis, Laura, St. George, Mougli, Biarritz and Horace; the third, Laureate, Walt Whitman, Mistress Prue, White Standard, Comus, Kingsley, Symphony, George Herbert, Tom Hood, Millie Price, Homer, Lullaby, Rhymster, Oliver Goldsmith, Dante, Rudyard Kipling, Jack Point, Carol, Hildegard, Tennyson, Sonata, Coronation, Herrick, Caesar, Almira, Ben Jonson, Minerva, John Ruskin, White Elephant, Timon, Sarchedon, Matthew Arnold, Glory and Cassandra. Out of all these, which are the best? I cannot, I fear, offer a selection; I can only say that I like the following very much indeed, and I would not like to be without them: Cassandra, Horace, Kestrel, Kingsley, Acme, Comus, Tom Hood and Virgil. My own practice is to grow a good many varieties, and then at show-time cut those which are in condition. Different years suit different varieties, and, again, an early or a late season makes a great difference in what will be at their best about the date of the exhibition. Hence this should be provided for. Lastly, before purchasing one should find out which are early and which are late. There will be quite a week or ten days' difference in the times of Chaucer and Hildegard opening. This latter, by the way, I would certainly include in my list if I wanted a late one and was prepared to pay £5 for it. There are others I would add if money was no object and if they were in commerce, such as Sarchedon, Socrates and Snow King. JOSEPH JACOB.

SWEET PEA MRS. ANDREW IRELAND.

[See Coloured Cover.]

THERE are some few people who grow Sweet Peas exclusively for exhibition, still more who cultivate them for exhibition and garden adornment, and many thousands who have them for the latter purpose alone. It is a general idea that Sweet Peas are all much of a muchness, and that a variety suitable for show purposes is equally good for the garden. This, however, is not invariably the case. When a variety is seen on every stand and ranks with the best in vigour, strength of constitution and floriferousness, it must be watched, and it will assuredly be grown. Of such as these is Mrs. Andrew Ireland. I should unhesitatingly include it among the three foremost varieties for gardens. When one visits a trial of a hundred or more Sweet Peas, Mrs. Andrew Ireland will be conspicuous from wherever one stands, for its beautiful bicolored blooms literally smother the plants. On stands at shows it may not be absolutely indispensable, but it lends that variety and helps other colours in a manner which make it exceedingly valuable.

H. J. W.

THE WHITE GERMAN CATCHFLY.

(LYCHNIS VISCARIA ALBA.)

THE ordinary form of the German Catchfly, with rose-coloured flowers, is a native of various parts of Europe, and is a comparatively rare plant in this country. For several years past gardeners have been delighted with the double form known as *Lychnis Viscaria splendens*, which is undoubtedly the finest garden plant of the group. The white variety now under notice is, however, very lovely when compared with the others. White varieties are usually looked upon as somewhat inferior to the types, but when planted in close proximity to them they are seen under the best conditions. This, then, I consider is the proper and right way

happy in this position during the winter. It is perfectly hardy, although sometimes it will suffer during the dull months in the neighbourhood of large and smoky towns owing to the sooty deposit on the foliage, which holds the wet and filth brought down by rains. A good plantsman can get as many plants as he wishes by carefully lifting a large clump and separating each crown with a portion of root if possible. In most cases, however, each crown would have a few roots attached if carefully separated by hand and knife occasionally to make sure of separating the crowns without breaking them. These young pieces should be potted up in the spring. After the plants have ceased flowering they can be put separately into small pots and potted on into larger ones as soon as they are rooted to encourage the crowns to make good flowering clumps for another year. The very small plants may be wintered in a cold frame; this will prevent slugs from destroying them before the growth commences in spring. A. C.

THE EREMURI.

THESE plants constitute a group of the noblest hardy herbaceous perennials, which, by reason of their imposing grandeur, are absolutely unique. They belong to the Lily Order, and come to our gardens from Northern India, Persia, Central Asia and other like parts; hence they are entirely fitted for cultivation in these islands. Hitherto the plants have been grown more or less as isolated examples, though at the present time there are not wanting evidences of that type of grouping which is calculated to display them to much better advantage. In all probability, perhaps the most effective way of dealing with the plants would be to provide them with a thin groundwork of shrubs, from which in early summer the giant inflorescences might issue. In this way these Eremuri would receive protection in spring for the leaves and the then coming spike of flowers. In any companionship of this kind, however, care should be exercised that the noble group we have in mind should have ample space, owing to the nearly horizontal spread or radiating character of their roots. Culturally, at the present time every attention should be given to water-



A FINE GROUP OF THE NOBLE EREMURI.

of using a white variety—by placing it alongside some of the dark forms, whether they are single or double. Another excellent way of showing it to advantage is to plant a large clump, group, or bed to form a large mass.

As a garden plant it is undoubtedly most at home in the rock garden, on account of its dwarf habit and short leaves, which are likely to get injured if planted in the ordinary herbaceous border when digging-time arrives. The stems generally grow from 9 inches to 12 inches high, and flowering, as it usually does, at the end of May and the beginning of June, the plant can be looked upon for early summer effect. Among the rocks a naturally-drained soil is almost certain, and the plant will be

ing and to liquid manure to encourage the formation of crowns, on which the good flowering another year so much depends. During the past few weeks, both at the great International Show at Chelsea and at Vincent Square, visitors have had an opportunity of seeing these Eremuri in great numbers, though more particularly the forms of *E. robustus*, *E. himalaicus* and *E. Warei*, which are blush pink, white, and pale orange flowered respectively. The first two named appear in the above illustration, the former, attaining occasionally a height of 10 feet or 12 feet. At a more seasonable time for planting I hope to deal with the group in fuller detail. E. H. JENKINS,

ROYAL HORTICULTURAL SOCIETY'S SUMMER SHOW.

AFTER a lapse of two years, this important exhibition was once again held in the beautiful and spacious grounds of Holland House, Kensington, on Tuesday, Wednesday and Thursday last.

The show proved to be a great success, and the quality of the exhibits has never been excelled. Hardy plants and alpine were the outstanding features. The water and rock gardens, arranged in different styles, were tastefully designed and carried out. Sweet Peas, Roses, Carnations, pot fruits, Orchids and Ferns were alike well represented. To the Rev. W. Wilks (secretary of the society), Mr. S. T. Wright (superintendent of the show), Mr. Frank Reader and Mr. Plowman we tender our thanks for services freely rendered in enabling us to report this admirable show. Unfortunately, the weather was threatening on the morning of the opening day, rain falling for the greater part of the afternoon.

HARDY PLANTS AND ALPINES.

These were as numerous and as effectively displayed as ever, and in some instances a few plants—notably the *Eremuri*, which under canvas do not give of the best of their good attributes—were not seen so well as in the open, the majority, because of the coolness and sombreness of the day, were not only seen to good advantage, but were capable of being viewed in comfort.

In No. 1 Tent, Messrs. Wallace and Co., Colchester, had one of their well-known characteristic groups, an arrangement of an Old English terrace and wall and water garden, adapted to modern times. Of its kind it was both ideal and convincing, without many of the extravagances of the exhibition arena—just that kind of thing that any good garden might reasonably contain. The flower-border portion, viewed from the upper terrace, as it were, was particularly effective and good, the height of a yard or more assisting the display materially. In this were seen masses of such *Eremuri* as *Sir Michael*, *Olgæ*, *Shelford*, *Bungei* and such distinctive hybrids of *E. Olgæ* as *Peach Blossom* and *Rosy Morn*, both of which are exceedingly delicate in colour. *Lilium myriophyllum*, *Jenny Hanson* Poppy, *Lychnis chalcidonica*, *Lilium auratum rubrovittatum*, with the "Gem" class of *Pentstemons*, were among important groups. A further feature was the raised terrace garden, below which came a bordering of Ferns in apparent shade, while again beyond this was seen a quiet, restfully-disposed water garden, grassed to the water's edge, and associated with all that was best and most agreeable with this phase of gardening. Hence it will be seen that the exhibit was of embracing character—indeed, a series—into which many phases entered, the whole being well conceived and perfectly carried out. The Japanese Irises and *Astilbes* at the margin were arranged in particularly fine groups, and were singularly good and effective. As the outcome of three days' work the result was excellent.

Messrs. W. Cutbush and Sons, Highgate, N., arranged a rather sumptuous group, the central

feature of which was a water garden rendered conspicuous by a free planting of *Water Lilies* and superb colonies of *Iris lævigata*. *Phormiums* and *Astilbes* occupied notable positions, while such things as *Lilium superbum*, *Thalictrum dipterocarpum*, *Darlingtonia*, *Sarracenia* and the like appeared in suitable places. In and around were arranged groups of early *Gladioli*, *Lilium giganteum*, *Meconopsis Wallichii* and other good and notable plants. The group was in excellent taste and well finished off.

Mr. Maurice Prichard, Christchurch, had a delightfully conceived and arranged rock garden, albeit the newness of the Purbeck limestone employed was rather opposed to complete success. Such things, however, are more or less inseparable from the exhibition tent, and in this instance were quite overshadowed by the great variety of plants introduced, by their choiceness and, not least, by the deftness and neatness of their colonised arrangement. In this way were seen delightful groups of *Hypericum empetrifolium*, *Campanulas pulla* and *puloides*, *Ruta patavina* (yellow), *Cytisus schipkaensis*, *Ranunculus bilobus*, *Ourisia coccinea*, *Wahlenbergia vincaeflora* and the lovely red and crimson single-flowered *Dianthus* E. T. Anderton. Either side of the rock garden was flanked by bolder herbaceous things, a conspicuous group being formed of *Lavatera* (*Malva*) *Olbia*, whose pink flowers, 3 inches across, are a great charm. Great flowering branches of *Coriaria japonica* displayed this most effective shrub to advantage. It is one of the most ornamental plants we know.

Messrs. George Jackman and Son, Woking, had an extensive grouping of the best herbaceous things, *Lilies*, *Delphiniums*, *Verbascums*, *Gaillardias*, *Geums*, *Phloxes* and the like all entering freely into a particularly fine display.

Messrs. Russell, Earl's Court Road, W., arranged rockwork outside No. 1 Tent with succulent and hardy plants generally.

In the open Messrs. Carter and Co., Raynes Park, arranged a Japanese garden, the great feature of which were the magnificent groups of *Iris lævigata*, which were everywhere in the greatest profusion. In colours of white, rose, purple, violet and many other shades, the plants were fascinating in the extreme, while around were *Lilies*, *Bamboos*, *Acers* and shrubs, *Funkias* and the like, everything everywhere Japanese to be in keeping with the general idea of the arrangement. The water portion was most effectively and naturally done, and, without obtrusiveness, constituted a most enjoyable whole.

Mr. G. Reuthe, Keston, Kent, arranged a rock-work exhibit on tabling, on which were seen many interesting alpine and other plants. *Acantholimon venustum*, *Abelia floribunda*, *Silene acaulis alba*, *Gypsophila prostrata rosea*, *Campanula raddeana*, *Saxifraga cochlearis*, *Epilobium obcordatum*, *Sedum sulphureum*, *Altium pedemontanum*, *Geranium Lowii*, *Patrinia palmata* (with yellow flowers) and *Campanula mirabilis* were among the more delightful things. A fine specimen of *Desfontainea spinosa* was also noted.

Messrs. Piper and Sons, Barnes, had a capital rockwork arrangement in conjunction with water

and Japanese Irises, the whole being well arranged with many suitable groups of plants.

Messrs. John Forbes, Hawick, Limited, had a remarkably good display of *Violas*, *Pentstemons*, *Pyrethrums* and *Phloxes* in the open, each group in its way containing a large number of good varieties. The *Phloxes* were particularly good, and of these we noted *Tapis Blanc*, *Bella Forbes* (pink) and *Mrs. Oliver* (pink and white). The *Pentstemons* were superb; we have never before, indeed, seen such excellence of culture or size of flowers as these contained in any Holland Park Show. *Thomas Hay* (scarlet and white), *Lady Love* (pure white), *Marquis of Linlithgow* (purple and white, very charming) and *Mrs. Mitchie* (scarlet and white throat) were among the best in a really grand lot.

Mr. Clarence Elliott, Stevenage, displayed on a table of rockwork some really grand masses of alpine flowers, notably the fine blue *Campanula* *Miss Willmott*, which is perhaps one of the best of recent additions to these plants. It was a most effective picture in a setting which included *C. pulloides*, *Oxalis enneaphylla*, *Coronilla Cappadocia* (yellow) and some others.

Messrs. Barr and Sons, Covent Garden, W.C., had a most effective grouping of *Phloxes*, alpine, English Irises and other good herbaceous subjects. *Salvia virgata nemorosa* (in purple and red) was singularly striking and good, a great gain effectively when seen in a mass as exhibited. It is almost unique. *Larkspurs*, *Lilium candidum*, *Campanula pusilla* (in wonderful array) and many annuals added greatly to the charm of the group as a whole. In the centre of the group was seen a prettily-conceived rock garden suitably and agreeably planted on all sides. *Campanula Hendersonii* was quite a striking plant, and is rarely seen in such excellence. The group, which included a choice lot of Japanese dwarfed trees, extended throughout the entire side of Tent No. 3.

On two sides of Tent No. 4 Messrs. George Bunyard and Co., Maidstone, exhibited splendid displays of hardy flowers, *Lilies* and *Delphiniums* being particularly good and in fine groups. The more conspicuous were *Alake*, *Queen Mary* (blue and white), *Rev. E. Lascelles* (the glory of the semi-doubles) and *Primrose*. The *Double White Rocket*, *Pentstemon Southgate Gem* and a series of the new *Astilbes* *Venus*, *Ceres* and *Rose Pearl* were quite good.

Mr. Howard H. Crane, Highgate, N., had some eighty or more pans of *Violas* delightfully arranged, showing to advantage these most precious of hardy bedding flowers. *Moseley Perfection* (yellow), *Royal Sovereign*, *Lady Knox* (primrose), *J. B. Riding* (rosy red), *Maggie Mott* and *Hugh Reid* (a fancy sort) were among the best in a really superb gathering. Some charming vases of the more miniature-growing *Violettas* were also noted.

Messrs. W. and J. Brown, Stamford, exhibited fine masses of *Gaillardias*, in which the self yellow *Lady Rolleston* found a place. *Thalictrum Delavayi* and *Ostrowskia magnifica* were also noteworthy and uncommon.

Messrs. R. H. Bath, Limited, Wisbech, had a rich display of *Delphiniums*, *Tribonia* (metallic

blue and mauve), Lord Charles Beresford (deep blue, white centre), Perle Bleu (semi-double, very distinct), and King of Delphiniums being among the finer sorts. Superb vases of Carnations were also seen in plenty.

Messrs. G. Bolton and Sons, Buntingford, Herts, had a mixed group of hardy flowers which contained *Campanula lumosa*, presumably a semi-double variety of *C. persicifolia*.

Messrs. Carter Page and Co., London Wall, showed a remarkable assortment of Violas in pans, some 300 of these making a really grand show. Bronze King, Redbraes Yellow, Purple Bedder, J. B. Riding and Virgin White were very beautiful.

Mr. G. Reuthe, Keston, Kent, displayed in No. 10 Tent a showy lot of hardy herbaceous plants, with flowering shrubs and alpiners, Lilies, Larkspurs and the more seasonable flowers being arranged in plenty.

Messrs. G. Mallett and Co., Cheddar, arranged a group of herbaceous things, in which the dominant features were *Lilium candidum*, *Salvia nemorosa virgata* and *Phlox omniflora* Snowden, a most effective variety of the early-flowering race. *Stachys grandiflora* was likewise a notable plant, good and distinct.

Early Gladioli and Sparaxis were the chief features of an exhibit from Messrs. Lilley, Guernsey, the group being most attractively arranged with Grasses. *Brodiaea laxa* in rich violet was also very beautiful.

Messrs. Paul and Son, Old Nurseries, Cheshunt, arranged a group of Phloxes, Heucheras, *Alstroemerias*, *Campanulas* and other good hardy flowers of the moment.

Mr. B. Ladhams, Southampton, had a remarkable display of Gaillardias, Superb and Sulphur Gem being perhaps the more conspicuous and distinct. *Salvia superba* (*S. turkestanica* × *S. sclarea*) is a most handsome plant. Pinks, too, were very charming and beautiful. The mass of *Scabiosa caucasica* was very fine.

Messrs. Robert Veitch and Co., Exeter, had some exceptional things in *Lonicera Hildebrandtii*, *Abutilon vitifolium album*, *Cyrilla racemiflora*, *Plagianthus Lyallii*, *Desfontainea spinosa* and the rarely-seen *Notospartium Carmichaeliae*, whose rose-coloured flowers on Rush-like stems are most charming.

Mr. Leslie Greening, Richmond Hill, exhibited a small rock garden with pool.

Hardy hybrid Phloxes, raised between *P. canadensis* and *P. decussata*, were shown by M. G. Arends, Ronsdorf; an interesting gap-filling race in which there are future possibilities.

A rock garden in red sandstone, arranged with Ferns and alpiners, came from Messrs. Fells and Sons, Hitchin, Herts. Primulas and Thymes were very charming.

Messrs. Gunn and Son, Birmingham, arranged basket groups of their *Viola cornuta* forms, such as alba, purpurea, and Lilac Queen. Some fine stems of *Lilium auratum* were well shown.

Messrs. Whitelegg and Page, Chislehurst, displayed an extensive group of hardy things, Gladioli, Larkspurs, Water Lilies, Geums, Heucheras and other showy plants.

Mr. James Box, Lindfield, arranged a particularly showy group of *Eremuri*, *Inula royleana*, *Cimicifuga racemosa*, English Irises, Delphiniums, the early Gladioli, Phloxes, *Sidalcea Listeri* and other plants.

Messrs. G. and A. Clark, Limited, Dover, had a particularly fine group of things—Pyrethrums,

Salvias, *Alstroemerias*, *Lilium candidum* (very fine) and the lovely *Gilia coronopifolia*, whose scarlet spikes were very fine. *Eremuri*, *Centaurea ruthenica*, *Origanum*, *Dictamnus* and Delphiniums were also good.

Messrs. Phillips and Taylor, Bracknell, Berks, had a variety of hardy plants associated with a Lily pond and fine banks of Delphiniums and other plants.

An exhibit of Delphiniums of considerable extent, if quite devoid of artistic merit, was arranged by Messrs. Kelway and Son, Langport, quite a large number of varieties in moderately-grown spikes being well displayed.

Mr. Reginald Prichard, West Moors, Wimborne, had a most interesting lot of things, chiefly alpiners, of which *Pentstemon White Newbury Gem*, *Saxifraga diversifolia*, *Wahlenbergia vincaeflora*, *W. saxicola*, *Dianthus Jubatus* and *Pentstemon Californian Blue Gem* were a few.

Messrs. W. Godfrey and Son, Exmouth, Devon, had a sumptuous group of Canterbury Bells, the great cup-and-saucer flowers in blue, pink and white defying description; an admirable display of an easily-grown and popular plant.

Mr. Amos Perry, Hardy Plant Farms, Enfield, displayed a lovely lot of Delphiniums, gorgeous banks of blue, violet and purple in many shades. Duke of Connaught (deep blue and white), Carnegie (metallic blue and mauve), Blue Fendre, Julia, La France and Rev. E. Lascelles were among the most imposing and beautiful. In another group Mr. Perry showed massed banks of Pinks, Phloxes, Lilies, *Veronica spicata alba*, and *Bletia hyacinthina*. Hardy Ferns and Water Lilies, all delightfully displayed, occurred as an extension of a group overwhelming in fascination, in beauty and in grace. *Lavandula nana atropurpurea* and L. Miss Jekyll's variety were also good. *Dianthus Painted Lady* and *Prunella webbiana rosea* were charming plants in this group. The exhibit from Mr. Perry occupied upwards of two thousand five hundred square feet, and contained many plants of merit.

A great and glorious bank of Phloxes came from Messrs. Gunn and Sons, Birmingham, the rich masses of colour absolutely defying description. Baron von Dedem (scarlet), Elizabeth Campbell (pink), Flora (pink and white), Le Mahdi (deepest violet) and George A. Strohlein (scarlet) were grand. One of the finest displays of Phloxes ever seen.

MISCELLANEOUS STOVE AND GREENHOUSE PLANTS.

A very charming group of flowering plants was set up by Messrs. W. Cutbush and Sons, Highgate, London, N. Polyantha Roses, such as Eileen Low, Orleans Rose, Jessie, Mme. Norbert Levavasseur and several other good things were beautifully grouped. Very striking were the Carnations in this display. Lady Coventry (rich and striking), Lord Rothschild, Queen Mary, White Perfection and King Arthur were all noteworthy. Crotons, Palms and Ferns added very materially to the effect of this group.

"Magnificent" aptly describes the gorgeous group of stove and greenhouse plants arranged by Messrs. J. Veitch and Sons, Limited, Chelsea, S.W. This group embraced grand examples of Crotons and other choice foliage plants, and in conjunction with flowering subjects, such as Orchids in variety, *Solanum Wendlandii*, Cannas, *Clianthus Dampieri* and *Saintpaulia ionantha*, made a really magnificent display. Of the foliage plants worthy of mention,

the following were of a high order of merit: *Anthurium Hookeræ*, *Polypodium glaucum crispum*, *Araucaria Silver Star*, *Cyanophyllum magnificum*, *Croton Resplendent*, *C. Thomsonii*, *C. B. Comte*, *C. Flamingo* and *Alocasia argyrea*.

Messrs. J. Hill and Son, Barrowfield Nurseries, Lower Edmonton, had a superb group of Ferns, in which there were many superb specimen plants. This group was so large and comprehensive that it occupied one-half of the centre of the Large Tent and faced all round. Noteworthy examples were *Platycerium Veitchii*, *Lomaria gibba*, *Gleichenia Mendelii*, *Nephrolepis exaltata superba*, *Davallia fijiensis robusta*, *Polypodium Knightæ*, *Nephrolepis Marshallii compacta*, and an immense array of beautiful plants the majority of which deserve mention. The disposition of the various subjects in this group was very good.

A superb exhibit of Ferns was staged by Messrs. H. B. May and Sons, The Nurseries, Upper Edmonton. The grouping in this case was charmingly carried out, and the effect was distinctly artistic and pleasing. *Adiantum farleyense gloriosum*, *Polypodium Knightæ*, *Lastrea patens* variety Mayii, the dainty little *Nothochloena rufa* and *Gymnogramma schizophylla superba* were among a host of most beautiful things that should please the Fern-lover.

A pretty group of *Araucaria Silver Star* was shown from Messrs. Thomas Rochford and Sons, Turnford Hall Nurseries, Broxbourne, Herts. This is a charming acquisition, and should be much valued by those who use this subject for conservatory embellishment.

A group of foliage plants from Mr. W. A. Manda, South Orange, New Jersey, U.S.A., and St. Albans, Herts, had a few choice plants staged therein; a notable example was *Polypodium mandaianum*, which received a first-class certificate. This is a beautiful plant, and was exhibited in splendid condition.

Zonal Pelargoniums in wondrous variety were shown in handsome bunches by Messrs. Carter Page and Co., London Wall, E.C. The colours were vivid and striking, and the individual pips very large. George Cooke, Andrew Lang, Mrs. Brown-Potter, Dublin and Princess of Wales were all striking.

Mr. H. J. Jones's Nurseries, Limited, Lewisham, S.E., set up one of their famous groups of Zonal Pelargoniums growing in pots. We have never seen anything to equal this fine exhibit of Geraniums, as the quality throughout was so good. Many seedlings from Paul Crampel were in evidence, and this gives a very good indication of their worth. St. Louis, H. J. Jones, Alf Simpson, Mrs. Tom White, Carmania, Will E. Newman and Freddie were noteworthy. A capital collection of Ivy-leaved Pelargoniums was also shown, embracing such sorts as Her Majesty, Mr. Hawley Gallilee and others.

Double-flowered Begonias were well shown, as usual, by Messrs. Blackmore and Langdon, Twerton-on-Avon, Bath. Exquisite aptly describes the quality and beauty of these flowers. The plants were in grand condition, carrying really wonderful blooms. Mrs. Robert Morton (amber), Florence Nightingale (white), William Marshall (brilliant crimson), Irene Tambling (orange) and Miss Ethel Gill (pink) were all magnificent.

Caladiums from Messrs. John Peed and Son, West Norwood, S.E., made an interesting exhibit, although not so large in extent as usual. The grouping left nothing to be desired, and was quite pleasing. Sir Henry Irving, W. E. Gladstone, Triomphe de Combe, King George, Mikado, Lady

Stafford Northcote and Oriflamme were conspicuous, and were a welcome piece of colouring.

Messrs. J. Carter and Co., Raynes Park, S.W., staged a pretty table group of Begonias, Streptocarpus and the primrose-coloured Calla, edged with Adiantums and Panicum variegatum. The effect was pleasing. The Begonias were very good, double-flowered sorts alone being represented. The Streptocarpi were pleasingly diverse in their colourings and markings.

Fuchsias from Messrs. Piper were a somewhat unusual exhibit at these shows. Specimen plants made an excellent background, with standard Fuchsias rising out of a groundwork of small in considerable variety. This exhibit recalled the days when the Fuchsias were so popular. The group was generally regarded as a distinctly good one.

A nice group of stove and greenhouse plants came from Mr. J. Bruckhaus, Twickenham, in which Caladiums, Crotons and Palms were chiefly conspicuous.

A small table group of show and fancy Pelargoniums was staged by Mr. W. Treseder, Cardiff. Lord Bute, Lady Bute, Flora and several others were exhibited.

In a group of plants set up by Messrs. Whitelegg and Page, Chislehurst, Kent, there was a mound of Salmon Paul Crampel Zonal Pelargoniums, which merited attention.

Choice stove and greenhouse plants were displayed in a table group by Mr. L. R. Russell, Richmond, Surrey. Here were to be seen pretty examples of Alocasia, Caladiums, Dracenas, Anthuriums and many choice subjects too numerous to mention. The grouping was well done considering the circumscribed area.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, staged a table group of such subjects as the Bottle-Brush Tree, Gerberas, Hydrangeas, Ericas, Pelargoniums, and the new Araucaria Silver Star.

Messrs. H. Cannell and Son, Swanley, Kent, made a grand show. In their group they had represented splendid banks of Cannas, double Begonias, Gloxinias, Zonal and Ivy Pelargoniums, backed by numerous specimens of American Pillar Rose. The Cannas were rich and glorious in their hues, the Begonias of a high order of merit, and the new Salmon Paul Crampel Zonal Pelargonium was grand. Rosebud is a pretty double Begonia.

Mary Countess of Ilchester (gardener, Mr. Dixon), Holland House, had an interesting group of succulents, embracing quite a large number of varieties. There were also several very interesting Cactaceous plants.

The sweet-scented Pelargoniums as shown by the Hon. Vicary Gibbs, Aldenham House, Elstree, Herts (gardener, Mr. E. Beckett), were a pleasing feature of this great show. Here were to be seen these noteworthy plants in almost endless variety. A few worth special mention were Pelargonium crispum maximum, P. Moore's Victory, P. fici-folium odoratum, P. Agnes, P. Purple Unique (well-flowered) and many others equally noteworthy.

ORCHIDS.

J. Gurney Fowler, Esq., Woodford, showed various Selaginellas in good style. Prominent among these were S. Braunii, S. apus (in pyramid form) and S. inæqualifolia. Interspersed among the greenery of the Selaginellas were Orchids, the most noticeable being Odontoglossum armstrongii, xanthotes and Cattleyas.

Mr. H. A. Tracy, Lily and Orchid Nursery, Twickenham, staged a compact little group of Orchids, including Cattleyas, Odontoglossums, Pleurothallis Scapha and Cypripediums.

Messrs. Charlesworth and Co., Hayward's Heath, had a really magnificent group. Occupying a prominent position were some fine specimens of Phalaenopsis rimestadtiana. Other notable exhibits were Grammangis Ellisii and Epidendrum prismatocarpum. The pretty little Aerides japonicum, which gained its first award at the 1866 Show, and shown as a rare plant at the recent "International," was to be observed, also well-grown plants of Epidendrum vitellinum majus, Oncidioda Cybele, Brassavola digbyana, Lælio-Cattleya Ceres variety Princess Mary, Brasso-Cattleya Leemannia and many others. Oncidium clæsiænum was an interesting exhibit.

Messrs. Mansell and Hatcher, Limited, Rawdon, Yorkshire, staged a fine exhibit. Cattleya dupreana showed up well. Lælio-Cattleya blechleyensis variety King George and L.-C. Martinetti were very attractive. Among other fine specimens were Miltonias in variety, Cattleyas, Cypripediums, including C. chamberlainianum and C. rothschildianum, Saccolabium Blumei, Odontoglossum williamsianum and many other well-grown Orchids, staged in excellent taste.

Mr. E. V. Low, Haywards' Heath, showed Cattleya Mendelii, C. Myra Teesters and C. Mossiæ reineckiana, Lælio-Cattleyas, Cypripedium P'Ansonii and Bulbophyllum Colossus.

Sir Jeremiah Colman, Gatton Park, Reigate (gardener, Mr. J. Collier), put up an interesting exhibit, including Odontoglossums, Cattleyas, Nepenthes and Miltonias. Cypripedium superbiens, Cattleya Mendelii grandiflora, Epidendrum alatum and Odontioda Bradshawia stood out prominently.

E. H. L. Davidson, Esq., Twyford (gardener, Mr. F. Cooper), showed Lælio-Cattleya Eudora, L.-C. Cowanii and L.-C. canhamiana. Among others were Cattleya Mossiæ Wagnerii, Cattleya thurgoodiana, Odontoglossums and Lælia tenebrosa x L.-C. canhamiana.

Mr. Harry Dixon, Spencer Park Nursery, Wandsworth Common, S.W., staged Odontoglossum Dora, O. Solon, O. laudatum and O. Fascinator. Cattleyas and Odontiodas made up the group.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, occupied a large portion of the Orchid Tent with a well-staged group. Noticeable among many other fine specimens were Cattleya thurgoodiana Apollo, C. gigas Meteor, C. reineckiana variety Snowflake, and C. Mossiæ. Vivid scarlet sprays of Renanthera imschootiana hung out prominently from the group. Oncidium pulvinatum, O. flexuosum, O. Gardenii and O. crispum added to the effect of the whole. Cypripedium niveum and C. bellatulum attracted by their dwarfness. Lælio-Cattleyas, Dendrobiums, Cypripediums, Odontoglossums and Cœlogynes were shown in profusion. Acineta Humboldtii, Gongora fuscolutea and Masdevallia simula were among other interesting exhibits. The tiny blooms of the latter peep out of the foliage like pheasants hiding in grass.

Messrs. James Veitch and Sons, Limited, Chelsea, showed a few Orchids in their huge general group. Cypripedium Curtisii, Cattleya Mendelii, Vanda cærulea, Oncidium leucochilum, Lælio-Cattleya Gladiator, Promenæa citrina, Odontioda Thwaitesii and Dendrobium Dearii were among the most striking. Cattleya gaskelliana, C. gigas sanderiana and Disa Luna were well-grown specimens.

ROSES.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, showed superb blooms of Mildred Grant, Liberty, Killarney, Richmond, Rayon d'Or and the Lyon Rose. The colour of the blooms and the manner of arrangement were all that could be desired.

Messrs. Frank Cant and Co., Braiswick, Colchester, were represented by a very fine collection of Roses, including Lyon Rose, White Maman Cochet and Marquise de Sinety. The single Roses Lady Curzon, Joseph Billard, Hebe's Lip and Gottfried Keller were much admired.

Messrs. William Paul and Son, Limited, Waltham Cross, had a magnificent group of Roses in baskets, interspersed with standards carrying a profusion of bloom. Among the varieties in baskets we were much impressed with Warrior, Château de Clos Vougeot and Mme. Ravary.

The delightful group from Mr. Charles Turner, Slough, was the admiration of all. In the foreground were arranged baskets of such capital varieties as Ulrich Brunner, Geoffrey Henslow (new crimson) and Viscountess Folkestone. The two new ramblers, Coronation (crimson) and Ethel (pink), were shown in grand form.

Mr. George Prince's Roses from Oxford were the acme of perfection both in colour and arrangement. In the centre of this group was a lovely stand of the new bedding Rose, Rayon d'Or, surrounded by equally good stands of Lyon Rose and Juliet, with ramblers in the background.

Messrs. George Bunyard and Co., Maidstone, showed very nice blooms of Juliet, Frau Karl Druschki and Lyon Rose in boxes, with ramblers such as American Pillar, Philadelphia Rambler, Rubin and Queen Alexandra as a background.

Messrs. W. and J. Brown, Stamford and Peterborough, had a beautiful group of fresh blooms, among which we noted Mme. Ravary, Richmond and Mme. M. Soupert.

Messrs. R. H. Bath, Limited, Wisbech, showed fine vases of Rayon d'Or, Beauté de Lyon and Marquise de Sinety, all very well coloured, in a good general collection.

Baskets of Roses were the feature of a very nicely-arranged group staged by Mr. W. Easlea, Danecroft Rosery, Eastwood, Essex. We were well impressed with two new bright little Polyantha Roses raised by the exhibitor, viz., Little Dorrit and Little Nell. The Lyon Rose, Harry Kirk, Duchess of Wellington and Arthur R. Goodwin comprised some of the choicest baskets in a remarkably good collection.

Messrs. Alex. Dickson and Sons, Limited, Hawtmark, Newtownards, County Down, had a superb collection, comprising Lady Ashtown, Lady Pirrie, Alex. Hill Gray, Mrs. Fred Straker, Duchess of Wellington, Theresa, Queen Mary and Duchess of Sutherland.

Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, were particularly strong with such choice novelties as Theresa, Rayon d'Or, Juliet, and a new seedling Hybrid Tea named Sunbeam, of delicate apricot colouring. Rose du Barri, Countess of Gosford and St. Helena were other gems in this admirable collection.

Messrs. G. Bolton and Son, Buntingford, Herts, showed some good vases of Prince de Bulgarie, Mme. Segond-Weber and Gustave Regis among many others.

Messrs. Paul and Son's group of standard and weeping standard Roses from Cheshunt, Herts, was one of the features of the exhibition, and one which we hope to illustrate in our next issue. The

foreground was occupied by baskets and vases of the best Roses in cultivation.

An extensive and gorgeous display of Roses from Messrs. Hobbies, Limited, Dereham, Norfolk, came in for general admiration. The collection seemed to contain almost all Roses worth growing. The new single Pink Pearl and the new semi-double Effective (carmine) were both well shown in this group.

Messrs. G. Jackman and Son, Woking, Surrey, were represented by a first-rate collection of Roses, in which the delicate shades of Duchess of Wellington, Harry Kirk and Mrs. Alfred Tate were conspicuous.

Mr. J. D. Webster, Chichester, showed Roses in variety, together with Sweet Peas, Vallota purpurea and other flowers.

Mr. John Mattock, New Headington, staged a magnificent group of Roses, with a grand display of Marquise de Sinety as a centre-piece.

Messrs. David Russell and Son showed a grand lot of Frau Karl Druschki Roses in boxes and vases.

A really charming display of cut Roses was sent by the Rev. L. C. Chalmers-Hunt, Willian Rectory, Hitchin.

Messrs. Hugh Dickson, Limited, Royal Nurseries, Belfast, had a very choice and beautifully-arranged table of Roses comprising the best varieties in cultivation. Mme. Melanie Soupert, Lady Pirrie, Leslie Holland and Frank Workman were four good varieties in an excellent collection.

A sport from Dean Hole, known as Duchess of Normandy, a lovely soft yellow with a suspicion of pink, was shown by Mr. Philip le Cornu of Jersey.

Mr. R. C. Notcutt, The Nursery, Woodbridge, had a capital group of Roses containing a representative collection of the best varieties. Mrs. E. J. Holland was particularly fine.

FRUIT.

A magnificent group of fruit trees in pots was set up by Messrs. James Veitch and Sons. The task of reporting this was particularly difficult, owing to the attractiveness of the fruit. Well-grown trees of Peaches in full bearing included Peregrine, Duke of York, Hale's Early, Early Alfred, Early Silver and Royal George. Well-coloured Nectarines on standards comprised Cardinal, Early Rivers and Lord Napier. Heavily-cropped Plums included specimens of Jefferson's, Oullin's Golden, Denniston's Superb and Blue Rock. The Gages were bearing prolifically and were well grown. Standard and wall Gooseberries included Gipsy Queen, May Duke, Keepsake, Lord Audley and Lord Derby. Of the Currants, Fay's Prolific stood out among the reds, and White Versailles was bearing well in the white section.

S. Heilbut, Esq., showed large half-standard Cherries in pots, Late Black Bigarreau being especially well grown, and Nectarines.

The Duke of Rutland (gardener, Mr. W. H. Divers) showed a collection of Strawberries, twelve varieties. All were exceedingly good, the best being Givon's Prolific, Gunton Park, The Countess and Burghley President.

Mrs. Gilliat (gardener, Mr. G. W. Stacey) showed two Fig trees in pots, which were interesting from the fact that they were rooted from cuttings taken from an old tree growing at 4, Crosby Square, E.C. The original was supposed to be the oldest Fig tree in the City of London.

Messrs. George Bunyard and Co. exhibited a selection of beautifully-coloured Apples, Plums, Pears, Peaches and Nectarines in pots. Noticeable

were perfect specimens of Apple James Grieve, Lady Sudeley and Ben's Red. Huge fruits of Marguerite Marillat Pear were prominent. The central position of the group was occupied by a healthy White Marseilles Fig with numerous large fruits.

The King's Acre Nurseries, Limited, Hereford, showed a collection of fruit trees in pots. Prominent among these were Apples Emperor Alexander, The Queen, Norfolk Beauty and Beauty of Kent. Peaches, Nectarines, Plums in variety, Black Currants Ogden's Black and Lee's Prolific, and Figs helped to make up an instructive exhibit. A basket of the King's Acre Newberry attracted attention. This fruit is like an enormous Blackberry in appearance.

Messrs. Laxton, Bedford, staged baskets of Strawberries in their inimitable manner. All of the fruits were splendidly shaped and coloured, and the exhibit proved a great attraction. Among the new varieties Laxton's Rival was prominent. The Earl, called by the firm the Midseason Viscountess, is of exquisite flavour. A cross between Waterloo and Royal Sovereign, The Earl is a big addition to the Strawberry world. The fruits are larger than Viscountess. Another new midseason variety was Maincrop. Red Currant Laxton's Perfection is a huge-berried Currant and a prolific cropper.

Messrs. Stuart Low and Co., Bush Hill Park, showed Figs in pots, including Bourjasotte Grise, Black Ischia, Violet Lepore and Brown Turkey. Some good specimens of pot Grapes, including Appley Towers and Muscat of Hungary, made a good background.

OFFICIAL LIST OF AWARDS.

Coronation Challenge Cup.—To Messrs. James Veitch and Sons, Chelsea, for fruit trees in pots and stove plants.

Wigan Challenge Cup.—To Mr. John Mattock, Oxford, for Roses.

Silver Cups.—To Mr. E. H. L. Davidson, 9, Oxford Square, W., for Orchids; Messrs. Mansell and Hatcher, Rawdon, for Orchids; Messrs. Blackmore and Langdon, Bath, for Begonias and Delphiniums; Messrs. G. and A. Clark, Dover, for herbaceous flowers; Messrs. L. R. Russell, Richmond, for stove and ornamental plants, &c.; Sir Randolph Baker, Bart., for Sweet Peas; Messrs. Sutton and Sons, Reading, for Sweet Peas; Messrs. E. W. King and Co., Coggeshall, for Sweet Peas; Messrs. C. Turner, Slough, for Roses; Messrs. B. R. Cant and Sons, Colchester, for Roses; Messrs. F. Cant and Co., Colchester, for Roses; Messrs. A. Dickson and Sons, Newtownards, for Roses; Messrs. Hugh Dickson, Belfast, for Roses; Messrs. H. Burnett, Guernsey, for Carnations; Messrs. T. S. Ware, Limited, Feltham, for Begonias and hardy plants; S. Heilbut, Esq., (gardener, Mr. G. Camp), for fruit trees in pots; Messrs. G. Bunyard and Co., Maidstone; for alpinas, Roses, fruit trees and herbaceous plants; Messrs. H. J. Jones, Lewisham, for Phlox and Pelargoniums; Messrs. G. Reuthe, Keston, for herbaceous shrubs and alpinas; Messrs. J. Piper and Son, Bayswater, for Dutch and water garden; Messrs. J. Veitch and Son, Chelsea, for flowering plants and Bay trees; Messrs. Hobbies, Limited, Dereham, for Roses; Messrs. Jackman and Son, Woking, for Clematis and herbaceous plants; Messrs. J. MacDonald, Harpenden, for Grasses, showing methods of cultivation; and Messrs. J. Peed and Sons, West Norwood, for Caladiums and flowering plants.

MEDALS.

Gold.—To Messrs. Charlesworth and Co., Hayward's Heath, for Orchids; Sir Jeremiah Colman, Bart., V.M.H., Gattin Park, for Orchids; Messrs. William Cutbush and Son, Highgate, for Carnations; Messrs. William Cutbush and Son, Highgate, for group of flowering plants; Messrs. Paul and Son, Cheshunt, for Roses; Messrs. James Veitch and Sons, Chelsea, for fruit trees in pots; Messrs. James Veitch and Sons, Chelsea, for stove and foliage plants and Orchids; Messrs. R. Wallace and Co., Colchester, for an Old English flower garden; Messrs. James Carter and Co., Raynes Park, for Japanese garden and Sweet Peas; Messrs. Dobbie and Co., Edinburgh, for Sweet Peas; Messrs. J. Hill and Son, Lower Edmonton, for Ferns; Messrs. William Paul and Son, Waltham Cross, for Roses; Mr. Amos Perry, Enfield, for herbaceous plants, Ferns, &c.; Messrs. H. B. May and Sons, Upper Edmonton, for Ferns; J. Gurney Fowler, Esq., South Woodford (gardener, Mr. J. Davis), for Selaginellas and Orchids; and Mr. Maurice Prichard, Christchurch, for herbaceous plants and water garden.

Silver-gilt Hogg.—To Messrs. Laxton Brothers Bedford, for Strawberries.

Silver-gilt Knightian.—To The King's Acre Nurseries, Hereford, for fruit trees in pots; and the Duke of Rutland (gardener, Mr. W. H. Divers) for fruit.

Silver-gilt Flora.—To Messrs. S. Low and Co., Enfield, for Orchids; Messrs. F. A. Haage, Erfurt, for Cacti; Messrs. W. Wells and Co., Merstham, for herbaceous plants; Mr. W. E. Alsen, Denmead, for Sweet Peas; Mr. B. E. Bell, Guernsey, for Carnations; Mr. C. Engelmann, Saffron Walden, for Carnations; Messrs. Gunn and Sons, Olton, for herbaceous plants and pigmy trees; Mr. J. Box, Lindfield, for hardy flowers and Sweet Peas; Mr. C. Elliott, Stevenage, for alpinas; Mr. G. Prince, Oxford, for Roses; Messrs. H. Cannell and Sons, Swanley, for miscellaneous group; Messrs. J. Cheal and Sons, Crawley, for garden and herbaceous plants; Mr. F. Lilley, Guernsey, for Gladioli; Mr. R. C. Notcutt, Woodbridge, for herbaceous plants; and Messrs. Carter Page and Co., London Wall, for flowering plants.

Silver-gilt Banksian.—To Messrs. C. W. Breadmore, Winchester, for Sweet Peas; Messrs. S. Bide and Sons, Farnham, for Sweet Peas; Messrs. R. Sydenham, Limited, Birmingham, for Sweet Peas; Mr. J. Douglas, Great Bookham, for Carnations; W. W. Gott, Esq., Cornwall, for Carnations; Messrs. G. Lange, Hampton, for Carnations; Messrs. James Carter and Co., Raynes Park, for Begonias; Messrs. W. Fromow and Sons, Chiswick, for Maples; the Hon. Vicary Gibbs, Aldenham House, for Pelargoniums; and the Countess of Ilchester, Holland House, for Cacti, &c.

Silver Knightian.—To Messrs. S. Low and Co., Enfield, for Figs; Rev. L. C. Chalmers-Hunt, Hitchin, for Sweet Peas, vegetables and Roses; and The Halliford French Garden, for vegetables.

Silver Flora.—To Mr. S. W. Flory, Tracy's Nursery, Twickenham, for Orchids; Messrs. H. Dixon, Wandsworth, for Orchids; Messrs. J. K. King and Sons, Coggeshall, for Sweet Peas; Messrs. G. Stark and Son, Great Ryburgh, for Sweet Peas; Messrs. J. Box, Lindfield, for herbaceous flowers, &c.; Messrs. H. Lakeman, Thornton Heath, for Carnations; Mr. C. Blick, Hayes, for Carnations; Messrs. R. H. Bath, Limited, Wisbech, for herbaceous plants; Messrs. Godfrey and Son, Exmouth, for herbaceous plants; Mr. H. Hemsley, Crawley, for alpinas; Messrs. B. Ladhams, Limited, Shirley, for hardy herbaceous plants; Messrs. S. Low and Co., Enfield, for Carnations; Messrs. Phillips and Taylor, Bracknell, for herbaceous plants; Messrs. R. Prichard, West Moors, for alpinas; Mr. C. Russell, for rock garden, &c.; Messrs. Whitelegg and Page, Chislehurst, for herbaceous plants, &c.; Mr. J. D. Webster, Chichester, for Sweet Peas, Roses and Carnations; Messrs. J. Forbes, Hawick, Limited, for Phloxes and herbaceous plants; Messrs. G. Gibson and Co., Bedale, for Delphiniums; M. G. Green, Esq., (gardener, Mr. W. White), for Sweet Peas; Mr. A. L. Gwillim, Sidcup, for Begonias; Messrs. Kelway and Son, Langport, for Delphiniums; Mr. W. A. Manda, St. Albans, for foliage plants; Messrs. T. Rochford and Sons, Broxbourne, for Araucarias; Messrs. F. Smith and Co., Woodbridge, for Phloxes and herbaceous plants; Messrs. J. Waterer and Sons, Bagshot, for Yews; Castle's Shipbreaking Company, Millbank, for garden seats; Mr. T. Crowther, Fulham, for garden ornaments; Messrs. Liberty and Co., Regent Street, for garden pottery; and Sir George Holford, Westonbirt, for Orchids.

Silver Banksian.—To M. Vacherot, France, for new Carnations; Mr. J. Bruckhaus, Twickenham, for Aspidistras; Mr. H. H. Crane, Highgate, for Violas, &c.; Messrs. G. Mallett and Co., Cheddar, for Lilies; Mr. H. C. Pulham, Elsenham, for herbaceous plants; Messrs. H. Freeman, Limited, Sutton, for rustic work; and the Leyton Timber Company, Limited, Leyton, for rustic work.

Bronze Flora.—To Messrs. Bees, Limited, Liverpool, for hardy flowers; Messrs. Carlton White, New Bond Street, for Box trees; Messrs. W. Fells and Son, Hitchin, for rock plants; The Misses Hopkins, Shepperton, for miscellaneous plants; Messrs. Rich and Co., Bath, for hardy flowers; Messrs. V. Slade, Taunton, for cut blooms and plants; and Messrs. Thompson and Charman, Bushey, for perennials.

FLORAL COMMITTEE'S AWARDS.

First-class Certificates.—To Polypodium mandaiianum, from Mr. W. A. Manda; Lilium warleyense, from Miss Willmott, V.M.H.; and Lastrea patens Mayii, from Messrs. H. B. May and Son.

Awards of Merit.—To Border Carnation Jean Douglas, from Mr. J. Douglas; Border Carnation John Ridd, from Mr. J. Douglas; Clematis Lady Betty Balfour, from Messrs. Jackman; Astilbe Avalanche, from G. van Waveren; Nephrolepis exaltata Rochfordii, from Messrs. Rochford; Begonia Mrs. Robert Morton, from Messrs. Blackmore and Langdon; Begonia Florence Nightingale, from Messrs. Blackmore and Langdon; Climbing Rose Ethel, from Mr. C. Turner; and Rose Mrs. Charles S. Hunting, from Messrs. Hugh Dickson.

ORCHID COMMITTEE'S AWARDS.

First-class Certificates.—To Miltonia hycana Le Conquerant, from M. Jules Hye de Crom; Cattleya Artemis, from Lieutenant-Colonel Sir George Holford, Westonbirt; and Cattleya dupreana The Dell variety, from Baron Bruno Schröder.

Awards of Merit.—To Brasso-Cattleya Marion, from Messrs. J. Veitch; Lælio-Cattleya rubens The Kaiser, from Mr. E. H. Davidson; and Cattleya thurgoodiana Apollo, from Messrs. Stuart Low and Co.

*** Owing to pressure on our space, we are compelled to hold over the reports of Sweet Peas, Carnations and Vegetables until next week.*

THE ROSE GARDEN.

THE ROSE DELL AT KEW.

DURING the months of June and July the Rose Dell is one of the features of Kew. It is situated on the eastern side of the Chinese Pagoda, occupying the position of what twenty years ago was a gravel-pit. The main avenue or grass walk is about fifteen feet wide and one hundred yards long, running through the centre of the dell. The garden dips down gradually towards the centre. No formal scheme of planting has been followed, the idea rather being to obtain, as far as possible, a natural appearance. In some instances large bays have been formed, which are usually devoted to one variety, the banks of soil at the sides being supported with large tree stumps or roots. With the aid of the tree stumps the soil in some instances is as much as 3 feet higher than the grass walk. This has a very pleasing effect when viewed from the centre of the garden; the long, arching growths wreathed in blooms are then seen to the best advantage. The Rose Dell owes much of its beauty to the policy of large, bold grouping, one particular feature at the present time being a large planting of Crimson Rambler some twenty yards long and one-third as wide. Means are employed to vary the height of the different groups. Some are allowed to grow in masses with no artificial support; others, notably the wichuraiana hybrids, spread over the ground and clothe the tree stumps. Rough branches freely clothed with snags, and the trunks of young trees of varying height with a foot or more of the branches left on the main stem to support the growths of the Roses, are freely used, resulting, in some instances, in perfect pillars of bloom approaching twenty feet in height.

Mention has been made of the fact that the site of the Rose Dell was previously a gravel-pit; this means poor soil, quite unsuited to the free growth of many Roses. To obtain such gratifying results the very liberal use of top-spit loam and farmyard manure has been necessary, for, without good cultivation, varieties such as Crimson Rambler are seldom satisfactory. On the other hand, it is really surprising how well some of the wichuraiana hybrids—Alberic Barbier and Jersey Beauty, to give two notable instances—thrive in poor soil. A complete list of all the varieties grown would occupy too much space, only those being mentioned which are especially attractive at the present time.

Helène, one of the Polyantha section raised by Lambert, is represented by one or two groups, the clusters of pale rose blooms with yellow-tinted centres being particularly attractive. The plants of this variety are grown in masses, are self-supporting, and about five feet in height. Tea Rambler is allowed to grow in a similar way and is rather taller in habit, the long, arching growth being freely clothed with the salmon pink blooms. Fragrance is a feature of this rambling Rose. For scrambling over rough branches and tree

stumps, the variety Una, with large single white flowers, deserves attention. One of the very best and most distinct varieties of recent introduction is American Pillar. Free and vigorous in growth, the clusters of large single pink blooms with bright yellow stamens in the centre form an effective contrast to the large, deep green leaves. It is a valuable variety which will be grown much more extensively as it becomes known, not only for massing, but for arches, pergolas, pillars and fences. The variety Tausendschön is notably free-flowering. It has large double flowers, deep pink or rose in colour, and fragrant; it belongs to the Polyantha section. Psyche, one of the first hybrids from Crimson Rambler, as growing here is very free with clusters of pale pink blooms. It is difficult to estimate exactly what we owe to the introduction of that charming little white-flowered Rose, Rosa wichuraiana, from Japan. It may almost be said to have revolutionised the growing of rambling and climbing Roses in our gardens; and what

These notes would not be complete without mention of the Dwarf Polyantha varieties Mme. N. Levasseur, White Pet and Jessie, all of which in their respective positions add to the charm and beauty of the Gardens.

THE SCOTCH ROSES.

THE various forms of the Scotch Rose (*Rosa spinosissima*) are among the earliest Roses to bloom. The Scotch Rose is a variable species, found in a variety of forms in a wild state. In some places it is found growing wild on commons and other waste land, where it forms a bush 2 feet or so high, the more floriferous plants being those which occupy the poorer soil. In the vicinity of Swansea Bay it has been noted growing on sandbanks among short grass, its stems rising to a height of but 2 inches or 3 inches, while numerous large white blossoms made an effective carpet. Under cultivation it has adapted itself to good soil, and the best examples are those which are given similar



A VIEW IN THE ROSE DELL AT KEW. THE VARIETY IN THE FOREGROUND IS HELENE.

would the Kew Rose Dell be without the huge masses or mounds and pillars of Alberic Barbier, Jersey Beauty, Lady Gay, Dorothy Perkins, White Dorothy Perkins, Edmond Proust, Hiawatha, Elise Robichon, South Orange Perfection, François Fouchard, Paul Transom and Adelaide Mouille?

A rambling or Polyantha variety of moderate growth is Kathleen, with exceedingly attractive single carmine pink blooms with a distinct white eye. For a single variety Kathleen lasts unusually long in flower. There are many more sorts worthy of mention—The Garland, the old favourite Fellenberg, Queen Alexandra, The Dawson, Trier, Flora, Pink Roamer, Mme. d'Arblay, Amadis and the Musk Rose, *Rosa moschata*, which has found its way up nearly to the top of a large Holly tree 30 feet in height, among the green leaves of which appear the large white clusters of the Musk Rose.

ground to that best suited to other kinds of Roses. Of the several named varieties the following are well worth attention: *R. s. altaica*.—This is a stronger plant than the type, for it forms strong, upright branches 3 feet to 4 feet high. Its ivory white flowers are upwards of two inches across. A couple of useful varieties with double yellow flowers are *luteo flore pleno* and *Harrisonii*, while the single golden-flowered variety, *lutea*, is an excellent variety. *Fulgens* is very similar in habit to the type, though its reddish flowers show it to be quite distinct. *Hispida* was at one time thought to be a distinct species, but is now placed as a variety of the Scotch Rose. Its distinguishing features are its strong, upright habit, intensely spiny branches and large pale yellow flowers. *Rubra* has small red flowers; *William IV.*, reddish blooms; while *Stanwell Perpetual*, *Lass o' Gowrie*, *King of Scots*, *Scotia* and *Meg Merrilies* are other good kinds.

THE GREENHOUSE.

WORK AMONG THE CHRYSANTHEMUMS.

MANY cultivators place the plants in the rows at a proper distance apart as they are finally potted. Others group them, placing four rows quite close together, and leaving them thus for several weeks prior to arranging them more openly. The plants do not suffer—in fact, many benefit—if thus placed, providing they are not left so too long. Unless the plants are spaced out in good time they lose many basal leaves through decay and strong winds after the fuller exposure.

Suitable Summer Positions.—In small gardens there is not much choice as to position; the plants must be arranged where there is room for them. In larger gardens the cultivator has a better chance. There is, however, one position which must always be avoided, namely, too near the south or south-

west side of a high building or wall. The strong winds blowing from the south and south-west strike the wall, and then there is a back current blowing down on the plants which is much cooler than a wind blowing from those quarters direct on the plants before striking the wall. An ideal position for plants grown for all purposes—exhibition, conservatory embellishment, or cut flowers—is one right in the open with a rather low, protecting fence on all sides. There are always cold draughts near high trees and buildings, and the result usually in such circumstances is mildewed leaves and immature wood. Place the plants in rows running north and south, so that the foliage and stems will get the maximum amount of sunshine. The tallest plants should be arranged at the north end of each row, and the dwarfier ones at the south. Allow a space of 22 inches between the pots in the case of the tall ones, and 18 inches in that of the dwarf-growing varieties. The rows should be at least 4 feet apart. If there is ample accommodation, 5 feet would be none too much. Stout stakes and wires attached to them will be necessary for the support of the plants. The longest stakes must be driven into the ground at the north end of each row, and the shorter ones at the south end. Put in the strongest stakes at the ends, and the lighter ones, 7 feet apart, between. Usually only one wire is fixed to the stakes, but I prefer two, 15 inches apart at the south or lowest end and 20 inches at the north end of the row. Two wires keep the plants steadier than one, as any necessary side sticks can be made quite secure to them. All plant sticks must be quite smooth and free from knots; then there will be no loss of shoots through their “buckling” on account of the matting getting lodged under any knots. Specimen plants require more room than any others. There must be space for the cultivator to walk all round them as late as the month of September, when each one is nearly full grown.

Watering.—For at least eighteen days after the final potting, water in great bulk will not be needed. There is a considerable quantity of new soil in the large pots, and when this has been moistened through once it retains much moisture for a long

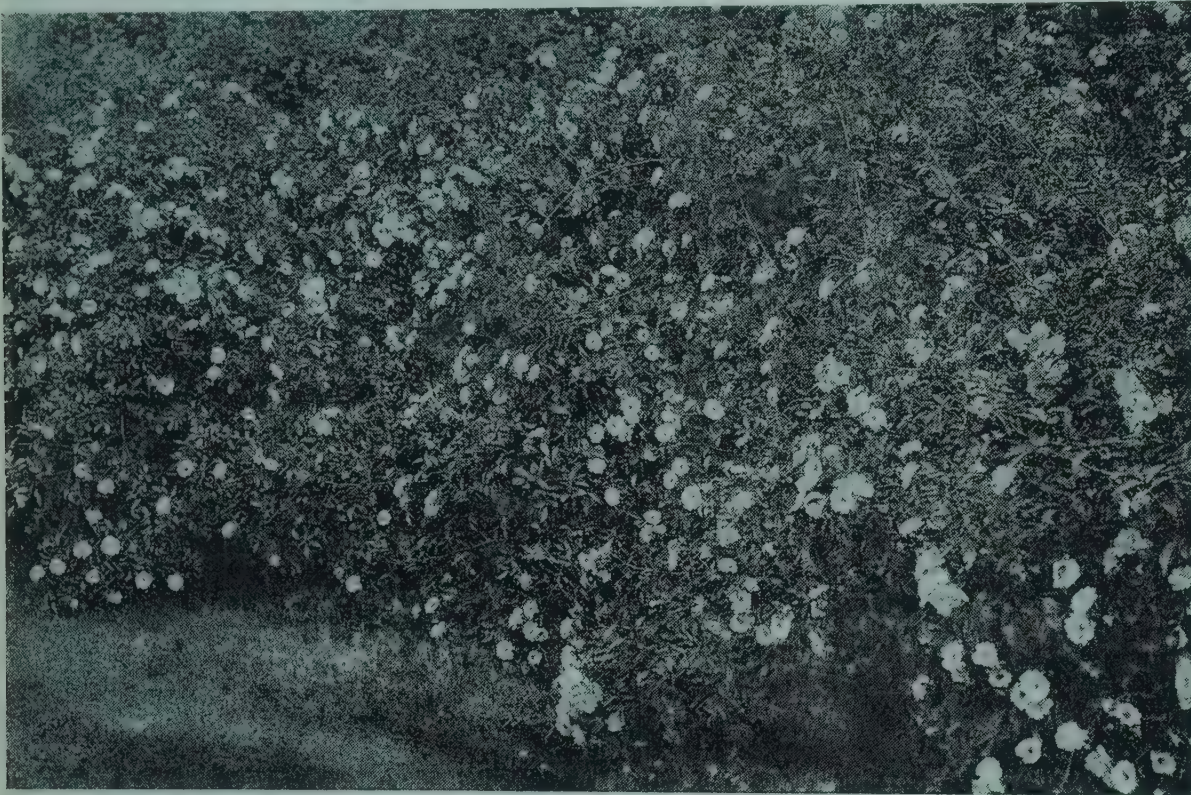
and the Westonbirt variety are also noteworthy. We mention these to show what a wide range of colour there is in one species, and to point out that many, if not all, of these choice gems were originally imported from Colombia. It follows, then, that where the amateur is a sportsman as well as a plantsman, he will purchase newly-imported examples; but my advice is to buy semi-established pieces from a reliable firm, who will guarantee them unflowered so far as this country is concerned. Then, again, where the grower does not care to take a “sporting chance,” really good varieties can be bought for a moderate sum; but the amateur will probably be best satisfied if he selects his plants in flower.

Miltonia Roezlii.—This plant closely resembles *M. vexillaria*, except that the foliage is not so wide, while its constitution is not so robust, thus requiring warm-house treatment.

Miltonia bleuana.—A splendid form of this charming hybrid was figured in *THE GARDEN* for June 4, 1910. The parentage is *M. vexillaria* and *M. Roezlii*, and it is fairly intermediate between these two plants; but the hybridiser has so many different forms of the first-named parent to work with that we get various examples of this choice plant.

Cultural Notes.—As *Miltonias* pass out of flower, and for a few weeks onwards, they must be kept on the dry side, but the bulbs ought not to be allowed to shrivel, for although growth will be slow, *Miltonia vexillaria* is never really at rest. When the new shoots show signs of rooting, any repotting may be done, using a mixture of *Osmunda* fibre, good peat, chopped sphagnum moss and partly-decayed Oak leaves in equal parts, the whole to be sifted through a 1-inch meshed sieve and thoroughly mixed before commencing operations. All the fine particles must be removed, and a 6-inch potful of finely-broken crocks may be added to every bushel of the compost with advantage. *Miltonias* are more or less surface-rooting subjects, so fairly deep pans without side holes should be chosen, which can be filled one-third of their depth with drainage. In repotting, press the soil moderately firm, and the surface should be on a level with the rim of the pan. Never overpot, because it is best to give new soil annually, whereby good results can only be obtained. After the operation is completed, arrange the pans upon inverted flower-pots in a shady part of an intermediate house where the night temperature fluctuates between 55° and 60° Fahr., and only give enough water to maintain the surface moist. This, however, can be increased as root action becomes more vigorous, and in the meantime keep the surroundings damp by frequently spraying between the pots, while the paths and underneath the stages must be occasionally sprinkled with water. Both top and bottom ventilation should be given with discretion, always avoiding a strong current of air passing directly over the plants. The most successful growers of *Miltonia vexillaria* try to maintain as equable a temperature as possible throughout the year, and keep their plants quite clean of thrips. This can be partly brought about by lightly spraying overhead whenever the weather is hot, and by dipping them in a weak solution of XL All Liquid Insecticide at intervals of three weeks or directly any insect pest is noticed. Over-potting is perhaps the greatest pitfall in the culture of *Miltonias*, and overwatering, another common error, should be especially guarded against after repotting.

SENTINEL,



A HEDGE OF MULTIFLORA ROSES IN THE ROSE DELL AT KEW.

time. If kept in a medium state of moisture the roots will enter it freely, the progress of the plants will be steady and satisfactory, the leaves will get greener and larger, and the stems will thicken more at their base.

AVON.

ORCHID NOTES.

MILTONIA VEXILLARIA AND ITS ALLIES.

THE *Miltonia* is a most useful and decorative Orchid, which, if given ordinary attention, will thrive and produce fine pseudo-bulbs that often push up two spikes bearing from three to seven of its broad, flat flowers. These show considerable variation in colour where a quantity of plants are cultivated, but the type usually has lilac rose blooms deepening to dark rose, while the large lip is generally darker than the other parts.

Some plants have almost white flowers, such as the rare *Snowflake*, shown before the Royal Horticultural Society on June 4, 1912, while a few of the highly-prized forms embrace *rubella* (G. D. Owen and Baron Schröder (two of the best in cultivation), while *splendens* *Queen Alexandra*

GARDENING FOR BEGINNERS.

CULTURAL NOTES ON CANNAS.

THOSE of the readers of THE GARDEN who followed the directions given on this page in the issue for March 16 as to the propagation and subsequent treatment of these gorgeous flowers are, no doubt, reaping the benefit of their labours. Many of the plants are now in bloom, and in order to keep up a succession thereof it is very necessary to bear a few points in mind. An important matter is to remember that these Cannas are liberal feeders; hence they should not be starved in pots too small, while the soil should be of a good, lasting nature. Pots from 6 inches to 7 inches in diameter are a very suitable size for single plants, while masses or clumps in pots as large as a pail are very useful for standing on balconies, terraces, or in many other positions. Plants that have flowered well in the greenhouse in 5-inch pots will not give of their best again unless they are stimulated to make further growth. In order to induce them to do this, a good plan is to turn them out of their pots and, without disturbing the roots in any way, to put them into pots of the size above stated, namely, 6 inches to 7 inches in diameter, according to the vigour of the individual plants. The soil may consist of good turfy loam, two parts; well-decayed manure, one part; and a dash of sand. While these Cannas need a liberal supply of water when the pots are well furnished with roots, they do not, of course, require so much for a short time after repotting, that is, until the roots have taken possession of the new soil.

While the advice to put in larger pots for greenhouse decoration refers principally to those that are in 5-inch ones, it may be that they are already established in pots sufficiently large. In this case the necessary stimulant may be applied in the shape of liquid manure or one of the many concentrated plant foods now so popular. Apart from their value in the greenhouse, these Cannas are, from their noble leafage and striking blossoms, very suitable for taking into the dwelling-house occasionally, where, just dropped into an ornamental vase or jardinière, they will be much admired. When intended for this purpose they must be limited to pots of a suitable size for the receptacles in which they are to be placed.

Out of doors a vigorous specimen planted in a lard-tub will, in an angle of the dwelling-house or similar position, prove an object of beauty throughout the summer months, and in winter it may be safely kept in a cellar or any spot where it is safe from frost. In the flower-beds, too, Cannas

are very attractive, both from a foliage and a floral point of view. In some the leafage is of a pronounced bronzy hue, while in others it is of a rich deep green tint. The colour of the flowers also ranges from pale yellow, almost white, to very deep crimson, through various intermediate shades of yellow, amber, orange, terra-cotta, pink, carmine and scarlet. The list of varieties is such an extensive one that in most cases a rigid selection is necessary.

(scarlet and orange) and William Saunders (deep rich scarlet, a very fine flower). The popular name of Indian Shot is applied to the Canna, owing to the hardness of their seeds, which, report says, have before now been used as shots. From the hardness of the outer coating the seed often fails to germinate if it is sown in the ordinary way. For this reason some recommend that the seeds be filed, but I prefer to soak them for twenty-four hours in water at a temperature of about 110°. They must be sown directly they are taken from the water, and not be allowed to get dry afterwards. So treated and plunged in a gentle bottom-heat they will grow quickly.

HOW TO PROPAGATE PINKS.

FROM a very remote period Pinks have been favourite garden flowers, and to-day they are as popular as ever they were. They may be increased in various ways; first, by division, that is, by splitting up old and established plants, each piece having a few roots attached thereto. Some varieties lend themselves much better than others to this mode of increase, those of a tufted habit being by far the best. If there is a nice shady border available, this may be done as soon as the flowering season is past; but failing this, the operation had better be delayed till the heat of the summer is over. Next—and this more particularly applies to those of spreading growth—Pinks may be layered in the same way as border Carnations; but the way in which they are most extensively propagated is by means of cuttings, or pipings, as they are often termed. These are formed of the young shoots which are produced with greater or less freedom around the base of established plants. These are usually put in a border under a north wall, or in some position where they are shaded from the sun's rays without being in the drip of overhanging trees. The soil of the border is dug



THE BEAUTIFUL CANNA J. B. VAN DER SCHOOT.

In looking over a large collection the other day I noted the following as among the very best in their respective colours: J. B. van der Schoot (herewith illustrated, rich golden yellow, dotted with red), Gaekwar of Baroda (golden yellow, with larger crimson spots than the preceding), A. Ortmann (dark velvety purple), Baron de Richter (bright apricot, lighter edge to petals), Frau E. Kracht (rosy salmon), Fürst Weid (deep crimson), King Humbert (bright reddish orange), Meteore (orange scarlet), Niagara (deep scarlet, with heavy gold margin), Ottawa (rosy cerise), Rosea gigantea (rich rose), R. Wallace (canary yellow), Stuttgartia

and a liberal amount of sand incorporated therewith. Then it is made firm and level for the reception of the cuttings. These should be taken off with a sharp knife, and be at once dropped into a bowl of water in order to keep them from flagging. Before insertion they should have one or two of the bottom pair of leaves removed, and then be dibbled firmly into the border prepared for them. They must then be thoroughly watered through a fine rose. The cuttings take root without covering in any way, but in the case of choice kinds it is more satisfactory to cover them with a hand-light or frame. H. P.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Plants Under Glass.

Winter-flowering Geraniums.—The plants will by now be ready for transferring into their flowering pots, if not already done. Pots of 5 inches and 6 inches will be large enough, the latter being the better of the two. Pot firmly, using a compost consisting principally of loam, with the addition of a little leaf-mould, sand and bone-meal.

Salvias.—For winter flowering these are most effective, and alike valuable for cut-flower purposes. As soon as they are ready for their final potting they may be stood out of doors. When rooting freely they must not be allowed to suffer for the want of water, or spider will surely attack the foliage. Keep the plants well syringed, and stop the growths to induce bushy and shapely plants.

The Hardy Fruit Garden.

Morello Cherries.—The growths made this season should be secured either by tying into the old wood or nailing into bare places. These must not be shortened back, as it is from these growths that next year's crop of fruit will be mainly obtained, and this variety requires plenty of growth for nailing in when the trees are regulated in the winter. Give the roots a good soaking of water, and apply a heavy mulch. If the growths are infested with aphids, give a thoroughly good syringing in the evening with an insecticide.

Protecting Fruit Trees.—As soon as the fruits begin to colour, protection must be afforded, otherwise the birds will take them before they are ripe. Wall trees should have the nets kept at a distance by sticks about a foot long with a small fork at the end.

Young Fruit Trees.—Though not carrying any fruits in most cases, these must not be neglected as regards tying and training, as a good commencement will ensure a well-trained and ultimately fruitful tree, and attention to the growths at this season before the wood gets too hard will greatly assist in keeping the tree straight. Additional strength can be diverted to the main shoots of the tree by systematically stopping the less important ones. Keep the growths clean, and mulch the surface over the roots.

The Kitchen Garden.

Cauliflowers.—As the curds mature, keep them from the light by bending down the leaves or tying with a piece of raffia. If too many become ready for immediate use, pull them up by the roots and hang them up head downwards in a cool cellar or Mushroom-house, where they will remain in good condition for a week or two. The end of this month and during next witnesses many flower shows, and in a collection of vegetables these score a goodly number of points when well shown, so that successional plants should be well watered and assisted with liquid manure. Make good any gaps in the later plantings. Hares and rabbits are especially fond of the plants. Keep well Dutch hoed and sprinkle with soot.

Celery.—Keep the crop well supplied with water during spells of drought, and the foliage dusted with soot while still damp with the morning dew. Though earthing-up is usually practised for a few early sticks, I much prefer to blanch with stiff brown paper, which in many respects is to be preferred, as the stems can be kept much cleaner and worms and slugs cannot get concealed. Commence with a strip about six inches wide, wind round, and secure with a couple of ties of raffia, and then at intervals place another tie or two. Where exhibition Celery is required it is much more easily managed in this way, and copious supplies of water are better given at the roots. I know of several cottagers who grow theirs in this manner. Later supplies are, of course, better earthed-up.

Potatoes.—Earth-up the late plantings without delay. Early sorts should be lifted when growth is completed and the haulm cleared off and burnt or disposed of, so that the ground can be occupied by another crop.

The Rock Garden.

Seed-sowing.—Many of the earliest-flowering subjects will be ripening their seed, and when it

is intended to sow any particular kind, the seed-pods are best cut off, placed in paper bags, and hung up in a cool, dry place, when they may be cleaned over in the winter months.

Viola gracilis.—This continues to flower profusely, and makes an excellent edging. Keep the seed-pods cut off as fast as these are formed, unless wanted for sowing.

Alpine Poppies (Papaver alpinum).—Both in the rock garden and on the front of the herbaceous borders these are now particularly attractive in their various colours, and easily raised from seed.

Remarks.—The various Thymes are now very attractive, as are also the Helianthemums with their showy flowers and the different Dianthi. Keep the surface free from weeds, and lightly fork up any bare places with a small hand-fork. During dry weather water as often as necessary, and damp over night and morning.

The Flower Garden.

Ornamental Climbers.—These are invariably growing apace, and a judicious thinning of the shoots and lightly supporting and regulating them will greatly add to their appearance without destroying their character, and care should, of course, be taken not to destroy any flowering growths. Just beginning to flower is *Tropæolum speciosum*, the Flame Flower, commonly seen in the North, but not so easily managed in the South of England. When growing over some Aucubas and common Box and Yew, as it is here, the effect is fine. The growths seem to enjoy plenty of sun, while the roots like shade.

Annuals.—Keep these well supplied with moisture at the root, allow plenty of room for each plant to mature, and neatly stake any that require it. The *Eschscholtzias*, *Godetias*, *Nigellas* and *Larkspurs* are among many that are useful for cutting when grown in open positions in the front of the shrubberies. In showery weather especially, with careful treatment, the thinnings may be planted out.

Bulbs.—Tulips and other bulbs should be lifted and placed out in the sun before storing away. Named varieties should be carefully preserved in their separate sorts and labelled to prevent any confusion when planted again next season.

Summer Bedding.—The warm showers have had a beneficial effect upon the newly-planted subjects. A damping eath evening in the absence of rain will do much to establish them. E. BECKETT, V.M.H.
Aldenharn House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

Fruit-Houses.

Late Grapes.—The clusters should be examined for the last time, removing those berries which have not stoned, as well as thinning the berries where they are too close.

Surface-Dressing.—Soot, if enough is applied, is valuable as a colouring agent and to keep the foliage healthy; also a good proprietary Vine manure should be applied, and shortly afterwards the borders watered. Growth on the Vines will recommence, and must be rigidly suppressed as it appears. If crops are heavy, the Vines must not be hurried, but permitted to mature the crop slowly, which results in good colouring and enables the Vines to prepare for next year's campaign. There must be no stinting of liquid, else the soil becomes too dry for healthy root-production.

Hardy Fruit Garden.

Fruit-Picking.—Much labour will be required to keep ripening Strawberries from spoiling. Much depends on the weather for quick or tardy maturing, but, as a rule, the beds should be systematically relieved of ripe fruits twice a week; in very hot weather three times. Over-ripe fruit is of less value than that scarcely quite ripe.

Summer Pruning.—Endeavour to finish this operation soon, the sooner the better. Those who have for any reason to defer this work do so at the expense of the health of the trees, which feel the loss of matured foliage more than that which is young. Continue to watch the extension of the growths on young trees, and fasten them neatly

and securely to the walls. Should aphids prove troublesome, drench the foliage with soapsuds to which a small proportion of petroleum has been added, mixing it well by pumping it with the syringe. Quassia Extract is a valuable summer wash for aphids.

The Vegetable Garden.

Shallots.—The time has arrived for harvesting this crop, which, after cleaning from dead leaves and roots, should be stored in a cold and dry shed.

French Beans.—For late picking seeds should be sown in cold frames in friable, fertile soil a foot in depth. The seeds may be planted 6 inches apart, the space to be widened once the plants are up. The sashes are not needed till cold nights in late autumn, when the plants must be well protected. Osborne's Forcing is one of the best.

Globe Artichokes.—These are now producing heads, and it is very important to cut all before they become too old, which keeps the plants in bearing. On the other hand, when left to flower and decay they cease to throw more stems. It is a good plan to have young plants for a portion of the crop, these producing later than old ones.

Herbs.—Too frequently it happens that in the rush of other work these are neglected, but it is worth while to devote some time to cutting off the stems of Sorrel and the flower-heads of Thyme and Sage. Fennel has such a beautiful flower that the blooms may be preserved for vase-filling; but the above, Mint, and any others requiring attention should certainly be seen to.

Celery.—The earliest batch will now be large enough to have a few inches of soil placed in the trenches, and that planted six weeks ago will be benefited by having an inch in depth of soil from the ridges spread over the surface of the trenches. This has a very beneficial effect, especially in dry weather. Any plants yet to be put out should be planted without further delay.

The Plant-Houses.

Malmaisons.—Some of the earliest plants will have flowered, and though it is not essential to propagate so early, a few layers may be made. The best method is to plunge the balls of the old plants into cold frames, and to put down the layers either into prepared soil or into 3-inch pots. If plants infested with eelworm have to be utilised, very short layers should be made, the parts nearest the tips of the shoots being usually free from infestation.

Begonia Gloire de Lorraine.—Those in 4-inch pots, if potted on into 6-inch or 7-inch ones, will quickly make large plants. A suitable compost is one part light rotten turf and one part leaf-soil. If the soil is heavy, employ it in equal parts with leaf-soil. A small proportion of manure may be added. In this the plants make very rapid progress. An occasional vaporising with nicotine is essential, else the mite which infests this plant very soon renders the foliage unsightly. A high, moist atmosphere suits them at this time of year.

Tuberous Begonias.—Cuttings taken now of special varieties will strike root if inserted in light soil in thumb pots, which should be stood in a cool structure and shaded from the sun. They are slow in rooting, but with ordinary attention nearly all form roots and make nice little tubers, which are valuable for flowering the second year. Plants coming into flower should have the water at the root always slightly strengthened with manure, cow or sheep manure or sulphate of ammonia being suitable.

The Flower Garden.

Gilia coronopifolia.—Seeds of this brilliantly-coloured species should be sown now or soon. The plants grow very slowly while young, and unless started early, they do not flower till late in the second year.

Hollyhocks.—The latest seedlings will now need a stake to each. It need not be very long, only sufficient to steady the spike. Old plants with several spikes are very decorative, and must be examined from time to time and the advancing spikes slung to a central stout stake. The Hollyhock rust disease appears about this time, and the whole plant should be dusted with flowers of sulphur, any leaves that are affected being removed and burned.

R. P. BROTHERSTON.
Tynningham, Prestonkirk, N.B.

THE KITCHEN GARDEN.

TURNIPS.

IN order to keep up a good and constant supply of sweet, tender, fleshy Turnips during the autumn and winter months, two or three sowings of seed should be made at intervals during the month of July, and, in the more favourable parts, the first week in August will not prove too late for the last sowing. For these later sowings I usually depend on Six Weeks and Veitch's Red Globe, both of which are most dependable varieties, and with care and attention will keep sound till late in spring. The land for this crop should be rather firm and in good heart, and have an open position, so that the plants may grow sturdy and robust. Assuming the ground is in readiness, let the drills be drawn 2 inches deep and 18 inches apart, and if the soil is dry, water the drills thoroughly some time previous to sowing the seeds. If birds are troublesome, damp the seeds with a little oil and roll well in powdered red lead. It is a good plan to put about the quantity of seeds required in a flower-saucer, then drop just enough oil to damp the whole of the seeds, scatter enough powdered red lead to just cover them, and then roll with the fingers till they have become well coated over. In this way the birds do not, as a rule, interfere to a great extent. Thin early and keep the hoe in frequent use, both to stir the soil and destroy weeds. To keep the bulbs fresh and sweet during winter is practised in various ways. I find that the best and least troublesome method is to lift the roots when they are the size of cricket balls, and bury them in trenches about three inches beneath the soil with the tops intact. In this way, with a slight covering of litter in very severe weather, the bulbs keep firm till very late in spring. Beet and Carrots are wintered in exactly the same way, and will keep fresh till those sown in spring are large enough for use. Our earliest Turnips to bulb in spring are Early White Milan and Munich; both are small-leaved, and can be grown either in frames or rather thickly on snug borders. They do not last sweet and tender for long in hot weather, but their goodness may be prolonged if lifted and laid in trenches on a cool border.

H. MARKHAM.

REPORT ON MARKET FLOWERS.

THE extensive cultivation of flowers for market is one of the developments of modern farming, of which, as yet, there has been no record, although in many parts of England its importance as a means of exploiting land which would be less profitably devoted to ordinary farm crops is well recognised. The counties in which flower-growing is most widely practised are, according to a recent report issued by the Board of Agriculture and Fisheries, Lincoln, Cambridge, Middlesex, Norfolk, Devon, Somerset, Cornwall, Cheshire, Lancashire, West Riding, Sussex, Kent, Hampshire and Surrey, but there are very few English counties from which some returns were not received, while in Wales and Scotland the industry has established itself in a few localities. Among the flowers most extensively cultivated are Asters, Chrysanthemums, Daffodils, Dahlias, Lilies of the Valley, Narcissi, Nasturtiums, Pansies, Roses, Sweet Peas, Violas, Violets and Wallflowers. The total area devoted to the

cultivation of flowers and shrubs appears to be slightly more than four thousand acres, and the gross value of the production is put at £121,000.

The great extension which has in recent years taken place in the cultivation of crops under glass has, of course, considerably increased the total output of the land. Among the crops included in one or more of the returns received, Tomatoes were the most widely grown, being included in forty-five returns from twenty-two counties. The value of the crop so returned was £43,000. Many of the returns did not state the extent of glass under which the crop was grown, but from those in which the area was stated it appeared that on twenty acres a crop of over six hundred tons was cut, being an average yield of over thirty tons, valued at £830 per acre. Next to Tomatoes, Cucumbers, Grapes and Chrysanthemums seem to be the crops most largely grown under glass, but other crops included in more than one return were Strawberries, Peaches, Lettuce, Radishes, Beans, Rhubarb and Narcissi. The returns in which the area of the glass and the value of the produce of all crops grown thereunder was given represented 155 acres with a total output of £150,000, or £968 per acre.

OBITUARY.

WILLIAM FYFE.

It is with feelings of deep and sincere regret that we announce the death of this well-known gardenor,



THE LATE WILLIAM FYFE.

which occurred on June 24. For a period of nineteen years Mr. Fyfe had been head-gardener at Lockinge Park, Wantage, the beautiful Berkshire residence owned by Lady Wantage. Mr. Fyfe had been in indifferent health for the last few years; but the sad news of his death from appendicitis is sudden, for we had the fleeting pleasure of meeting him, apparently well, at the recent International Exhibition. At this exhibition his success in the large Grape class is still fresh in our memories. It was as a fruit-grower that he excelled, and his beautifully-arranged collections of early fruits, particularly at bygone Temple Shows, will long be remembered. He was also a successful competitor with vegetables; and, indeed, it may be said of him that he was a good all-round gardener. The remarkable success achieved at Lockinge in the culture of Rose Fortune's Yellow has been commented upon in earlier issues of THE GARDEN. He will always be remembered, by those who know him, as a genial Scotsman, a keen politician, and one

always willing to further the interests of those who worked under him. He was a member of the fruit and vegetable committee of the Royal Horticultural Society. The deepest sympathy is expressed with the widow in her sad bereavement.

THREE BEAUTIFUL GARDEN LILIES.

AMONG those Lilies which show colour and form in the highest degree, and also furnish a reasonable certainty of permanently establishing themselves in gardens under stated conditions and treatment, three at least are conspicuous. Of this trio the earliest to flower is the citron yellow form of the Caucasian Lily,

Lilium szovitzianum.—Though often confounded with *L. monadelphum*, it is quite distinct and vastly superior. Growing to a height of 4 feet and more, it flowers in the early day of June; the floral segments are thick, wax-like, and sharply recurving as in the Martagon Lilies, to which group it belongs; the stamens are coloured red and form an effective contrast to the citron yellow flowers; the growth of this Lily in spring is not precocious, and I have not found it adversely affected by late frosts. The flowering season of

Lilium testaceum (the Nankeen Lily) follows the previous species, and is at its best during the first fortnight of July. Generally regarded as of hybrid origin, *Lilium testaceum* is, by reason of its colour, one of the most distinct. The stems are chocolate brown, densely clothed with leaves, which gradually diminish in size as they approach the terminal heads of drooping nankeen flowers. In these the petals reflex and the anthers are coloured red. *Lilium testaceum* reaches a height of 5 feet and more when established, and though one of the earliest Lilies to appear above ground in spring, any light protecting branches will ward off frost and break cutting winds.

Lilium Henryii is a comparatively recent introduction, having been introduced from Western China twenty-two years ago. It has proved a valuable garden plant, as when established it grows to a height of 6 feet to 8 feet and bears twelve to twenty-four flowers on each stem, flowering in the open during the latter part of July and the beginning of August. The flowers are orange yellow; the colour is deepest in positions where the plants are screened from the midday sun. *Lilium Henryii* belongs to the group "Archelirion," to which section *L. auratum* and *L. speciosum* are attached. So closely does it resemble the latter in a general way that on its first appearance it was known as the yellow *speciosum*.

All of these Lilies attain perfect development in soil composed of rich fibrous loam and decayed leaf-soil, and if a mulching of well-rotted cow-manure is given every spring, their steady increase is assured. Even upon limestone soil these Lilies promise to increase in no uncertain manner. Home-grown bulbs of any of these Lilies can be procured from English trade growers, and are far superior to imported ones. Planting can be carried out during October and early in November. *L. Henryii* is a stem-rooting Lily and must be planted deeper than the others named; 3 inches to 4 inches of soil above the bulbs is a good depth, allowing 6 inches of soil for *L. Henryii*,

THOMAS SMITH.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

LUPINES DROPPING BUDS (Mrs. C.).—White Lupines are particularly subject to dropping their unopened flower-buds when the soil in which they are planted becomes dry or the root becomes otherwise injured. It is always well to plant them where they are well within reach of moisture.

INJURY TO PHLOXES (L. E.).—The Phlox is attacked by the root-knot eelworm (*Heterodera radicola*). You will find little swellings on the roots, and these are teeming with eelworms. Possibly the pest was introduced with the manure. A dressing of quicklime in the autumn and of sulphate of potash now would do something to improve matters. Many different kinds of plants are subject to the attack of these pests, and no Phlox should be planted on the same soil.

LILIUM AURATUM (F. V. H.).—We fear you will not find much virtue in the peat-moss litter as received in the bales for stable use, owing to the process of drying and preparing. Subsequently, unless it has been long laid up, turned and incorporated with the soil, it so retains more powerful salts as to become a source of danger if used too near the roots of the plants. Many Lilliums do not require peat at all, and the fact that yours have done well till this year goes to prove that peat is not essential to the species above named. If you experiment at all, our advice is to proceed slowly and use it in moderation. Gardeners generally prefer not to use it unless it is very old.

PHLOX FAILING (Phlox).—We found no insect or grub of any kind in the sample submitted, nor, indeed, any evidence suggestive of insect-life as the cause. Should wireworms exist to any great extent, these may upon occasion perforate the stem, though this pest does not usually attack these plants. The condition of the stems, so far as we could determine (they were much withered when received), was due to injury at or near their base, but we cannot say what has caused the mischief. The splitting noted in one stem is the outcome of rupture, due probably to sudden sharp frost while the stems were young and sappy. Only one of the stems, however, had so suffered, apparently, hence the difficulty of arriving at any definite answer for the whole.

PLANTS FOR FLAGSTONE PATH (D. P. S.).—The most expeditious way of furnishing the interstices between the stones would be to break up the plants of any Sedums you have, and prick out the small portions between the stones without delay. Such Sedums as *acre*, *aureum*, *Lydium*, *hispanicum* and its variety *glaucom*, *dasyphyllum*, *corsicum* and *album* are well suited to the work, and any little fragment will take root. *Campanula pusilla*, *C. p. alba*, *C. pulla* and *C. muralis* are all good, and may be similarly treated. *Thymus Serpyllum coccineum* is a most charming plant, and any of the *Aizoon Saxifragas* would do admirably. Such Mossy Saxifragas as *densa*, *Whitlavii* and *muscoidea atropurpurea* would also prove suitable, and would be best pulled to pieces and planted in August or September. Seeds of *Erinus alpinus*, *Aubrietia* and other plants might be sown very thinly in position, provided the soil is good enough. Cuttings of any suitable plants, if rooted in the next few weeks, could be planted in September.

THE GREENHOUSE.

LIGHT-COLOURED DARWIN TULIPS FOR A DARK BORDER (E. V.).—Bearing in mind the limitations imposed upon us by our foreign correspondent, viz., that the Tulips should be about the same height and flower about the same time as *Clara Butt*, and also that, if possible, they should be catalogued in Krelage's list, we would advise as follows: (1) White shades, Painted Lady and Innocence (a pure white Cottage variety); (2) pink shades, The Fawn (Cottage) and Flamingo; (3) pale lilac and mauve shades, *Gudin*, *Euterpe* and *Albion* (Cottage.) It will be noted that three are classed as "May-flowering Cottage Tulips," but they are so similar in their general appearance to Darwins that they may be planted together with the happiest results.

INJURY TO CARNATION (*Malmaison*).—The Carnation is attacked by the grub of the Carnation-fly (*Hybomyia nigrescens*). This fly is very like a common house-fly in appearance, and about the same size. It lays its eggs either on the foliage or near the root of the Carnation, and you will find the legless maggot feeding in the stem. No better remedy than hand-picking can be used, for the fly is about so long that nothing put on the plant with the object of driving it away will be likely to do any good. The shoots affected can usually be easily detected, and should be pulled out and destroyed as soon as seen. Some growers pick out the maggots with a needle.

THE NEW FUCHSIA BENITA (J. G. K.).—We presume that your reference to Fuchsias above one's head applies to the cordon-trained examples shown at the International Exhibition, Chelsea, by Messrs. Veitch. If so, we may say that the variety *Benita* is of neat, compact growth, and therefore as widely removed from these lofty specimens as it is possible to be. Furthermore, in our own note, which was published in THE GARDEN for May 18 (before the opening of the "International"), we stated that this particular variety was shown at a meeting of the Royal Horticultural Society on April 30. It is a charming little Fuchsia, but whatever its main characteristics may be, it is not a giant in stature.

ASPIDISTRAS (S. P.).—We have never been troubled with the white worms in the soil of the Aspidistras, though, strange to say, we have of late been consulted two or three times in the matter. The pests must have been introduced either in the soil or in the water given to the plants. Lime-water would, in all probability, destroy them. You may prepare this by putting a piece of unslaked lime the size of one's fist in half a pail of water, and allow it to dissolve. After this, stir the water and allow it to stand till quite clear, when it must be poured off without disturbing the sediment. Then water the plants with this, allowing it to drain freely away. The water when clear will only hold a certain amount of lime in solution, and this will not be sufficient to injure the plants.

SEEDLING FREESIAS (E. K. T.).—Freesias, if they are potted singly, may be put into pots 3½ inches or 4 inches in diameter, but we should prefer to place five or six in 5-inch pots. They must be arranged to have all the possible space, that is, four or five disposed equidistant from each other near the edge of the pot, and one in the centre. A suitable soil may be made up of three parts of good loam, two parts of leaf-mould and one part of sand. They may then be placed in a frame or greenhouse, but should be kept rather close and shaded for a few days until they recover from the check of removal. After that they must have plenty of air and light, while a little shading during the heat of the day will be beneficial. As the pots get furnished with roots, an occasional stimulant will be of great service.

AN UNKNOWN DISEASE (*Maoriland*).—In your far-off clime you would appear to have a Pelargonium disease that we are unacquainted with, and which we hope will not find its way to this country. From what you say we think that it is caused by a fungus of some kind, and should suggest spraying the plants with some recognised fungicide. Potassium sulphide, or liver of sulphur as it is often called, is frequently used for the purpose. This is prepared by dissolving an ounce of potassium sulphide in a quart of hot water, and then making it up to two and a-half gallons with cold water. Permanganate of potash dissolved in water is also a good fungicide. This should be used of such a strength that the solution is of a pale rose colour. We are sorry that it is impossible to give any exact information, for such a trouble is new to us.

PALMS (*Anxious*).—There is little doubt that the cause of the ill-health of your plant of *Kentia belmoreana* is the exposure it received after the pot was broken. You could not have done better than to have repotted it at once and placed it in a warm house, keeping it frequently syringed. Shading from the sun would also be very essential. These Palms require to be well supplied with moisture at all times. Of course, when repotted and there is a mass of fresh soil around the roots, Palms need decidedly less water than when they are fully established and the roots permeate the entire ball of earth. The compost named by you is very suitable for the *Kentias*, and, in fact, for Palms in general. The amount of injury a Palm would sustain by being exposed in the manner detailed by you would, of course, to a great extent depend upon the conditions under which it had previously been grown. If it had been kept in a structure where a high temperature and a large amount of atmospheric moisture were maintained, it would, of course, suffer far more than one grown under harder conditions. We know of no book on the subject likely to suit you.

ROSE GARDEN.

ROSE FOLIAGE INJURED (W. Craig).—The foliage has been attacked by the Rose slugworm. Syringe well upon the under side of the foliage with Jeyes' Horticultural Wash or Tobacco wash, and repeat this at frequent intervals.

SOIL FOR ROSES (E. L. C. F.).—The sediment from a pond is very rich in food for Roses, and would be excellent to use in forming new Rose-beds next autumn. We would advise you to add about one part of this material to one part of good turfy loam, the top spit from a meadow; but if this is not available, then with good soil from your kitchen garden—soil that has been well enriched for a few years with manure. If you could provide a depth of 3 feet of such compost, it would enable you to grow some splendid Roses, adding, as you suggest, lime and manure. This latter should be in a well-decomposed state, that is,

from a heap that has been thrown up for twelve months, unless you can obtain good manure from a farmyard where there is very little straw in its composition.

FRUIT GARDEN.

GOOSEBERRIES FOR INSPECTION (Cromer).—The Gooseberries are not attacked by the American Gooseberry mildew or by any other disease. They appear to have been bruised, and probably have been kept too long after picking.

MULBERRIES NOT RIPENING (E. G.).—We can only account for the failure of your Mulberry fruits to ripen that the roots of the tree have penetrated a very cold or wet streak of soil. Probably if you drained the ground about the roots some good might be done. The specimen sent for examination is the Jerusalem Sage (*Phlomis fruticosa*).

FRUIT TREES AS A GARDEN SCREEN (J. M.).—Cordon trees of the fruit you mention would answer the purpose very well, we think. As we presume your fence will be rather low (less than seven feet), double cordons would succeed better than single cordons. The following varieties are good: Pear Williams' Bon Chrétien, Apple James Grieve and Plum Victoria or Old Green Gage. Yes; certainly you may plant flowers in the border, but not within a foot of the stem of the trees.

SCALE ON APPLE TREE (H. W. S.).—The Apple tree is infested by the scale insect called *Lecanium caprae*, an insect which lives on a number of other trees as well. At this season eggs only are present, so that no spray can usefully be applied. Later, towards the end of the summer, these eggs will be hatched, and then spraying with paraffin emulsion or with a nicotine wash will be the best remedy to apply. Spraying the trees with 2lb. of caustic soda, three-quarters of a pound of common treacle and ten gallons of water about the end of February would be a useful measure to adopt.

PLUMS NOT SETTING (W. F. M. C.).—We fear it is impossible to say, without seeing the trees, why your wall trees have failed to fruit. From what you say, however, it looks as though they were not properly fertilised. Were other varieties in flower at the same time, and were insects present to carry the pollen? Victoria does not require foreign pollen, but many other varieties do. Your best plan, since the Pear-midge larvæ have made their way into the earth, will be to remove the top 2 inches or 3 inches of soil during the winter, and either burn it or bury it deeply, replacing with fresh. The use of Vaporite would be of doubtful value.

CATERPILLARS ON FRUIT TREES (B. H. A.).—The best wash to apply now for the purpose, is the following: Arsenate of soda (dry), 3½oz.; acetate of lead, 6oz.; water, 10 gallons. Dissolve both together in the water and well stir, afterwards adding half a pound of treacle. The same insecticide may be obtained as a paste, called Swift's Arsenate of Lead Paste. It may be had of any sundriesman advertising with us. When ordering, state what it is wanted for. This wash destroys all biting insects, such as caterpillars, moths, &c. It should be applied in a very fine spray through a knapsack pump or syringe, taking care that every part of the foliage is wetted thoroughly. One spraying should suffice. If it does not, spray the affected parts again. One winter spraying with caustic alkali wash is sufficient if carefully and effectively applied to every part of the tree. A too frequent application of these strong washes is inimical to the health of the trees. Early in February is a good time to apply the latter.

KITCHEN GARDEN.

CABBAGES GONE WRONG (H. D.).—No fungus or insect was present, but the Cabbages looked somewhat as though they had passed their best and had begun to decay, perhaps through wet and cold.

CUCUMBERS WITH RED SPIDER (A. Skelton).—The best thing to do with your Cucumbers is to syringe them heavily every morning and evening with clear water. If persisted in, this will soon eradicate the red spider that you complain about, although it would have been better had you adopted it as a preventive. In addition to syringing the plants, also keep the pathways and all woodwork well damped down so as to create a humid atmosphere.

OLD SEAKALE ROOTS (E. A. P.).—Cut off all the flower-speaks at once. Let the plants grow as freely as possible during the summer. There will be nothing to do to them, except to keep the ground round them free from weeds. As soon as the leaves are dead (in the autumn), clear them away, taking care not to injure the top or crown of the roots in doing so. The crowns should then be covered over with sifted ashes about three inches deep. At Christmas-time, place over the roots large Seakale pots (inverted, of course), and then over and among the pots place a quantity of fermenting material, such as strawy litter from the stable, and fresh leaves in equal parts. Tread this material firmly down among the pots, covering them over from 9 inches to 1 foot deep. This material, when it ferments, will create a mild growing heat, and in five weeks' time you may look for some Seakale ready to cut. Another way of treating it is to bury the ground over (where it grows) to a depth of 12 inches with soil, leaf-mould and clean sifted ashes some time in March. The result will be that in April well-blanching, delicious Seakale will grow through this covering of soil. It should be cut off at the crown of the root as soon as the tip end of the growth appears above ground.

SCALD ON TOMATOES (W. M.).—The blotchy yellow scar on the Tomato fruit sent is the product of sun scald. You write of it as being underneath the fruits, but really it is on the upper and exposed side as the fruits hang by their stems on the cluster. Moisture in the form of vapour is created during the night. This condenses, settles on the fruit, and in the early morning before it has dried off the sun shines hotly through the glass of the house and through the moisture, and thus scalds or hardens the skin and a thin portion of the flesh, very much the same as is done through scald on Grapes. There is no evidence whatever of any fungoid germs. Water less freely, give air at night, leave on all the leaves, and then try to keep the house drier than hitherto.

MISCELLANEOUS.

ASPHALT PATH (H. H. C.).—Your asphalt path may be brushed over with ordinary tar, or, better still, with asphalt or mineral pitch. Heat the tar or asphalt and brush it well into the path while hot; then apply a good dressing of crushed shell to help it to set. As the work is very dirty and somewhat awkward for the uninitiated, we advise you to put the matter into the hands of some experienced workman. Road-men often make a good job of it.

TO KEEP WATER IN A LILY POND CLEAN (B. S. K.).—You cannot do better than introduce copper sulphate into your pond to kill the green scum. It should be used at the rate of 2½ oz. to 10,000 gallons of water. Take the copper sulphate and place it in a canvas bag, then draw it through the water until all is dissolved; or you may mix it with a little water and spray it over the surface. Do not add any clear water for two or three days. Providing you keep to the strength mentioned above, neither fish nor plants will be harmed; but if you use it stronger it may do both a certain amount of injury. It will probably be necessary to repeat the experiment at intervals of a month or six weeks during summer. We do not think that water-snails would have the desired effect.

NAMES OF PLANTS.—*L. B., Stonehaven.*—1, *Ourisia coccinea*; 2, *Delphinium nudicaule*.—*F. M., Derby.*—Shrub with small leaves, *Pernettya mucronata*; shrub with larger leaves, *Escallonia* species; large white-flowered herb, *Matricaria inodora* (May Weed); small flower and leaves, *Matricaria Chamomilla* (wild Chamomile).—*M. V. H., Cotoneaster frigidula.*—*Miss J., Cornwall.*—*Cordylina (Dracena) stricta.*—*Miss B., Lancs.*—1, A variety of *Platycodon grandiflorum*, also known as *Campanula grandiflorum*; 2, *Staphylea pinnata* (Bladder Nut).—*W. G., Surrey.*—Roses: 1, Mrs. A. E. Coxhead; 2, Heinrich Schultheis; 3, Augustine Guinoisseau; 4, Mrs. F. Sandford; 5, Maman Cochet; 6, Lady Battersea; 8, Mme. Hoste; 9, Cheshunt Hybrid.—*T. M. D., St. Ives.*—The orange red flower is *Hippeastrum* (*Amaryllis*) equestris; the rose-coloured flower is *Zephyranthes carinata*.—*A. B., Dunedin, N.Z.*—*Abelia trifoliata*. The specific name at first sight does not seem appropriate, but if you examine the branches of the inflorescence closely you will find that most of them have three flowers on each.—*Constant Reader.*—1, *Zephyranthes carinata*. This must have been introduced to South Africa, as it is only found growing wild in the West Indies; 2, *Begonia metallica*; 3, *Asclepias curassavica*; 4, *Helix Solierolii*.—*H. W. C., Alton.*—*Aerides odoratum*, a native of India and China. —*E. B., Wigan.*—*Prunus (Cerasus) lusitanica*, the Portugal Laurel. —*T. C.*—1, *Félicité Perpétue*; 2, *De la Griffierie* or *Seven Sisters*; 3, a species of *Clematis*; send us a flower. —*A. C., Cirencester.*—Irish Glory. —*Mrs. S.*—1, President; 2, Zepherine Drouhin; 3, Mme. Alfred Carrière; 4, Alberic Barbier. —*F. S., Kidderminster.*—The white variety is *Francois Guillot*; the buff *Elise Robichon*.

BOOKS.

Hortus Mortolensis.*—This is a rather handsomely-got-up volume of some four hundred and fifty or so pages, cataloguing in alphabetical order the plants growing in the garden of the late Sir Thomas Hanbury at La Mortola, Italy. The catalogue has obviously been compiled with great care, and is not confined merely to a list of the subjects grown, but contains much useful information about the soil of the garden and district and other important matters, such as temperatures, snowfalls—which but rarely occur and which remain visible for a few hours only—and rainfalls. The foundation of the garden dates from 1867, when the purchase of the site was concluded, and from that time to the present the work of adapting it to the requirements of the large collection of plants has continued unceasingly. In a prefatory note we are told that “the garden is practically never without

flowers. The end of September is the duldest time, but as soon as the autumnal rains set in, the flowering begins, and continues on a ever-increasing scale till the middle of April. Then almost every plant is in flower, the most marked features being the graceful branches of the single yellow Banksian Rose, the sweet-scented Pittosporum, the wonderful crimson *Cantua buxifolia* and the blue spikes of the Canarian *Echium*.” In another passage we are told that the soil is “heavy and clayey, in summer becoming hard and cracking into deep fissures”; also that “the climate of La Mortola is the typical one of the Northern Mediterranean: the summers are dry and rain falls chiefly from autumn to spring. Generally speaking, the rainfall is irregular, and three months may pass with little or no rain.” “The drought,” we are told, is often such “that even large fleshy *Opuntias* become shrivelled and withered.” Hence an artificial water supply is a necessity. It is information of this kind which, in view of the varied contents of the garden, places the book far above a mere compilation of names, and renders it useful to a large number interested in exotic vegetable-life. The list of *Opuntias* alone comprises two hundred or more, while *Rosa* and *Rubus* are both largely represented. Nearly one hundred pages of the book are devoted to “notes,” and as these savour of the historical as well as the cultural, together with other interesting information, both the student and the gardener will find abundant food for thought with refreshment of the right kind.

SOCIETIES.

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THE seventy-third anniversary festival dinner, held at the Grocers' Hall, City, on June 25, proved to be a great success. Sir Jeremiah Colman, Bart., J.P., D.L., V.M.H., was the chairman for the evening, and we cannot refrain from congratulating him upon the success which crowned his efforts on behalf of this excellent institution. About two hundred and thirty supporters of the fund were present on this occasion, including Lady Colman, Lady Roxburghe, Lord and Lady Devonport, Lord Southwark, the Hon. Millicent Blyth, Mr. J. Colman, the Right Hon. Mark Lockwood, M.P., Mrs. Baxendale, Sir Walter Smythe, Sir H. Brooks Marshall, Lady Brooks Marshall, Sir Harry Veitch, F.L.S., V.M.H. (treasurer), Lady Veitch, Mr. A. W. Sutton, J.P., V.M.H., Mr. M. H. F. Sutton, Mr. E. White, Mrs. E. White, Mr. J. Gurney Fowler, Mr. N. N. Sherwood, Mrs. J. W. Campbell, Mr. Edward Sherwood, Mr. W. Y. Baker, Mr. G. Monro, V.M.H., Mrs. G. Monro, Mr. A. Mackellar, V.M.H., Mr. George Bunyard, Mr. D. Ingamells, Mr. James Hudson, V.M.H., Mr. George Paul, Mr. W. A. Bilney, J.P., Mr. and Mrs. J. W. H. Barr, Mr. W. Crump, V.M.H., Mr. Owen Thomas, V.M.H., Mr. and Mrs. J. Rochford, Mr. S. T. Wright and many others.

After honouring the loyal toasts, Sir Jeremiah Colman proposed “Continued Prosperity to the Gardeners' Royal Benevolent Institution.” He outlined the useful work that is carried on by this institution, and concluded with a most eloquent appeal in his endeavour to make this one of the most successful gatherings in the annals of the history of the institution. Sir Harry Veitch, who was received with loud and prolonged cheers on making his first appearance in public since the honour of knighthood was conferred upon him, responded to the toast. It is a toast that he has responded to for many years, and no one is better able to do so, for the institution has a sincere and generous friend in Sir Harry Veitch, the highly-esteemed treasurer. The toast of “The Ladies and Visitors” was proposed in a characteristic speech by the Right Hon. Mark Lockwood, M.P., and responded to by the Right Hon. Lord Southwark. Mr. N. N. Sherwood proposed the health of the chairman in very fitting terms. In returning thanks, the chairman expressed his deep gratification to the Worshipful Company of Grocers, who had, for the second time, so kindly placed their magnificent hall at the disposal of this benevolent institution.

In the course of the evening the secretary announced the following handsome donations to the institution: Sir Jeremiah Colman (chairman), £500; Mr. N. N. Sherwood, £500, a special donation to celebrate his completion of fifty years with the wholesale seed firm of Messrs. Hurst and Sons; Sir Harry and Lady Veitch, £300, a special donation in acknowledgment of the honour conferred upon him and, incidentally, upon the profession; Mr. Leopold de Rothschild, 100 guineas; Messrs. Sutton and Sons, 100 guineas; Mr. A. Sutton, £20 to the Good

Samaritan Fund; Mr. Gurney Fowler, 50 guineas; and Sir Harry Waechter £50. Many other handsome donations were announced, making up the grand total to £3,250. With the exception of the Jubilee year, this is a record total in the annals of the institution.

SOUTHAMPTON ROSE SHOW.

THE National Rose Society had an early exhibition in conjunction with the Southampton society on June 26. The show was a very fine one, and, as usual at this society's functions, the arrangements were admirable. Competition in many classes was very keen, the flowers staged being of a high order of merit.

Messrs. D. Prior and Son, Colchester; Messrs. B. R. Cant; Messrs. J. Burrell and Co., Cambridge; Mr. G. Prince, Longworth; and Messrs. A. Dickson and Sons were prominent winners in the open and nurserymen's classes.

Dr. C. Lamplough, Kirkstall, Alverstoke, was very successful in the classes for amateurs.

In the open class, for forty-eight blooms, distinct varieties, Messrs. D. Prior and Son were awarded first honours. Mamie, Mme. C. Soupert, Bessie Brown, Mildred Grant, Dean Hole, White Lady and Caroline Testout were notable blooms. Messrs. B. R. Cant were second and Messrs. A. Dickson and Sons third, both firms staging lovely flowers.

In the class for twelve, distinct, three blooms of each, Messrs. D. Prior and Son again scored. Mrs. Myles Kennedy, J. B. Clark and Mildred Grant were very fine trebles in this stand. Messrs. B. R. Cant and A. Dickson and Sons were second and third respectively.

The Southampton Challenge Bowl, offered in the class for twelve Teas or Noisettes, distinct varieties, was also won by Messrs. D. Prior and Son. The varieties Maman Cochet, Molly Sharman Crawford, Mme. Jules Gravereaux and Mrs. Foley Hobbs were conspicuous flowers.

In the nurserymen's class for twenty-four blooms, distinct varieties, Messrs. J. Burrell and Co., Cambridge, scored. Messrs. G. Prince, Longworth, and Messrs. Perkins and Son, Coventry, were second and third respectively. There was a big entry in this class.

Longworth blooms were to the front in the class for eighteen Tea or Noisette Roses, distinct varieties, Mr. G. Prince being first and Mr. H. Drew second.

In the class for a representative group of cut Roses in a space not exceeding 60 square feet, Mr. E. J. Hicks, Twyford, won with a lovely collection. Mr. Drew was second.

Mr. Hicks also won in the class for seven baskets of cut Roses.

A gold medal was awarded to Messrs. A. Dickson and Sons for a new single Rose, Irish Flame; and one was awarded to Messrs. B. R. Cant for a lovely cream-coloured Hybrid Tea Rose named St. Helena.

Mr. Lamplough won the Munt Cup in the amateur class for eighteen blooms, distinct varieties. A. K. Williams, Bessie Brown, Queen of Spain and Florence Pemberton were fine specimens. Mr. G. N. Hammond and Mr. E. M. Eversfield were second and third respectively. There was a big entry in this class.

Mr. H. L. Wettern, Sanderstead, Surrey, had the best six blooms of any Hybrid Perpetual, staging Frau Karl Druschki. Dr. Lamplough was second.

For six blooms of any Hybrid Tea, Mr. E. F. Brown, Slough, led, Dr. Lamplough being second and Mr. Wettern third, the varieties Dean Hole, Mildred Grant and Avoca being staged respectively.

For twelve Teas or Noisettes, distinct, Mr. A. H. Gray, Bath, scored.

The Rev. J. H. Pemberton, Romford, led in the class for twelve bunches of garden Roses. Mrs. A. M. Wightman was second and Mr. Conway Jones, Gloucester, third.

Mrs. Colston Hale, Warminster, had the best table decoration, using Rose Irish Elegance; also the best bowl of Roses, using Mme. A. Chateau.

Mrs. E. M. Burnett had the best basket of Roses, arranging Gottfried Keller and Irish Elegance very tastefully.

NON-COMPETITIVE EXHIBITS.

Messrs. Toogood and Sons had Sweet Peas; Messrs. W. H. Rogers and Son, Limited, Southampton, Roses; Messrs. B. Ladhams, Limited, Shirley, hardy flowers; Mr. Wootten, Carnations; and Mr. Longster, Southampton, Carnations.

BOURNEMOUTH GARDENERS' ASSOCIATION.

AN EVENING OUTING.

ON Friday, June 28, the members of the above society met at Michelgrove House, Boscombe, by kind invitation of Walter Child Clark, Esq., F.R.H.S., to inspect his collection of Roses. It is quite uncommon, as the garden is studded with Pine trees and many beautiful shrubs; there is no formality about the plan of the garden generally, and its natural appearance adds considerably to its attractiveness. Mr. Clark grows about two thousand Rose trees; he is an enthusiast, and has been a great lover of this popular flower all his life. The very best varieties are added to the collection every year. Mr. Clark believes in growing the Lyon Rose and all red varieties in partial shade, and, judging from the magnificent specimens grown in these gardens in such circumstances, the method is a sound one. Ramblers are trained to the stems of some of the Fir trees, some of the plants clothing the trunks to a height of nearly twenty feet. The variety Lady Waterlow is lovely in colour and obtains no sunshine during any part of the day. Rayon d'Or is planted near the edge of some of the borders, its foliage strong and glossy and not addicted to mildew. Juliet is seen growing lightly pruned and hard pruned, and,

* “Hortus Mortolensis,” compiled by Alwin Berger curator of the garden at La Mortola, for Lady Hanbury. London: West, Newman and Co., Hatton Garden.

undoubtedly hard pruning answers best. Lyon Rose does best as a standard; some lovely blooms were to be seen on standards, much more highly coloured than others on dwarfs. Melanie Soupert was magnificent, and Hugh Dickson in exquisite form and colour. To name only a few out of so many, the following were very noteworthy: Prince de Bulgarie, Pharisaer, Souvenir de W. Robinson, Commandant Felix Faure, Joseph Hill, Mrs. David McKee, Frau Karl Druschki, Lady Hillingdon, Mrs. Frederick Straker, Mrs. Harold Brocklebank, G. C. Waud, Admiral Dewey, Mme. Abel Chatenay, Caroline Testout, Conrad F. Meyer, Anna Raubson and Marquise de Sinety. The Rambler section is well represented, and, considering the fact that the Roses are so liable to be robbed by the roots of the large trees under and among which they are grown, their general health is remarkably good. A unique pergola on rock pillars and a beautiful display of Clematises claimed much notice. Before leaving, the members were kindly invited to inspect the beautiful gardens of Boscombe Place by the owners, Mr. and Mrs. Hamilton. Here, Lily of the Valley and Camellias were to be seen growing luxuriously under the Pine trees. Roses again claimed much attention, also a very fine collection of rockery and alpine plants. These gardens extend to the edge of the high cliffs, and many curiosities have been found in the face of the latter. A fossilised specimen of the seed shell of *Nipa fruticans*, supposed to be quite a million years old by a very eminent authority, was found, and the members had the privilege of inspecting it, also a modern husk with seed-kernel enclosed. Mr. Clark provided tea on his lawn for the members, and before separating they very heartily accorded Mr. Clark and Mr. and Mrs. Hamilton their sincere thanks for all the kindness they had extended to them.

THE WINDSOR, ETON AND DISTRICT ROSE AND HORTICULTURAL SHOW.

A MORE charming setting for a flower show than the slopes of Windsor Castle would be difficult to find. The noble edifice on the one hand and the Home Park on the other make a delightful picture, and the committee of the society are fortunate in being so favoured.

The Clerk of the Weather, however, has not recently added his blessing, and for some years rain has fallen on each occasion. This year proved no exception, for on Saturday, June 29, it rained for a greater part of the time. Still, the number of visitors, including the Duchess of Teck and other distinguished personages who were not deterred by the weather, was very good, and they were rewarded by a lovely display of blooms.

In this exceptionally favourable year for Roses, it is hardly necessary to say that the exhibits in this section were of a much higher standard than those of previous years.

The feature of the show was the capture by Messrs. D. Prior and Son of Colchester of the King's Challenge Cup for the best Rose, which, having now been won by them for three years, becomes their personal property.

Mr. Lindsell, the well-known amateur, took away the Windsor Challenge Cup, he having won it three years in succession. In all, the society is the poorer by five cups leaving Windsor this year.

REIGATE ROSE AND SWEET PEA ASSOCIATION.

THE seventh annual exhibition was held in the Priory Grounds (by kind permission of Somers Somerset, Esq.) on June 29. Previous exhibitions, good as they invariably have been, were eclipsed by that of the present, not only as regards the competitive classes, but also by the superiority of the trade exhibits and the method of displaying.

ROSE CLASSES.

Open to Nurserymen.—Forty-eight distinct varieties (challenge cup and money prize): First, Messrs. D. Prior and Son, Colchester, with an excellent collection containing fine blooms of Gloire de Chedane Guinoisseau, Mrs. Myles Kennedy, White Maman Cochet, Leslie Holland, J. B. Clark, Dr. Andry, Mrs. John Laing, Cynthia, Comte de Raimbaud, Frau Karl Druschki, Horace Vernet and Her Majesty; second, Messrs. Benjamin R. Cant and Sons.

Twenty-four distinct varieties: First, Mr. Henry Drew, Longworth, Berks, with Helen Keller, Mrs. Myles Kennedy, Frau Karl Druschki, John Cuff, Bessie Brown, and Mrs. H. Brocklebank; second, Mr. George Prince, Longworth, Berks; third, Mr. Elisha J. Hicks, Twyford, Berks.

Eighteen distinct varieties, Teas or Noisettes: First, Mr. Henry Drew with nice blooms of Mrs. E. Mawley, Mme. Jules Gravereaux, Mrs. Myles Kennedy, Molly Sharman Crawford, White Maman Cochet, Mrs. Hubert Taylor and Mrs. Foley Hobbs; second, Mr. George Prince; third, Messrs. D. Prior and Son.

Twelve bunches of garden Roses: The handsome challenge cup and first prize fell to Messrs. Frank Cant and Son, whose collection consisted of Mrs. Herbert Stevens, Grüss an Teplitz, Gardenia, Lady Hillingdon, Mrs. Alfred Tate, Gottfried Keller and Crimson Damask; second, Messrs. W. Spooner and Son, Woking; third, Messrs. G. Jackman and Son, Woking; fourth, Mr. Elisha J. Hicks.

Amateurs.—Twenty-four distinct varieties: Challenge cup and first prize, A. Tate, Esq., who showed fine blooms of Avoca, Mme. Melanie Soupert, Jean Beautois, Mrs. E. J. Holland, White Maman Cochet, Mildred Grant, Horace Vernet and Yvonne Vacherot, which received a silver medal for being the finest bloom in the division; second, Mr. E. M. Eversfield; third, the Rev. J. H. Pemberton.

Eighteen distinct varieties (open to growers of less than two thousand plants): Silver cup and first prize, John Hart, Esq.; second, R. Bonner, Esq.; third, F. Slaughter, Esq.

Twelve distinct varieties, Teas or Noisettes: First, E. M. Eversfield, Esq.; second, Alfred Tate, Esq.; third, F. Slaughter, Esq.

Twelve distinct varieties (open to growers of less than one thousand plants): Challenge cup and first prize, E. Lehmann, Esq.; second, Mrs. Henry Balfour; third, C. Davies, Esq.

Nine distinct varieties (open to growers of less than three hundred plants): Challenge cup and first prize, Alan Searle, Esq.; second, George H. Ashberry, Esq.; third, Captain Mirehouse.

SWEET PEA CLASSES.

Twelve bunches, distinct varieties (open): Challenge cup and first prize, F. A. Wellesley, Esq., with lovely sprays of Mrs. Cuthbertson, Elsie Herbert, Thomas Stevenson, Edith Taylor, Freda, W. P. Wright, Elfrida Pearson, Maud Holmes and Mrs. C. W. Breadmore; second, A. E. Usher, Esq.

Six bunches, distinct varieties: First, A. E. Usher, Esq.; second, F. W. Franks, Esq.

Two bunches, scarlet: First, A. E. Usher, Esq., with Scarlet Emperor and Maud Holmes; second, F. G. Bealing, Esq.

Two bunches, orange: First, A. E. Usher, Esq., with Thomas Stevenson and Helen Grosvenor.

Two bunches, pink: First, Mrs. Kensington, with Hercules and Countess Spencer.

NON-COMPETITIVE EXHIBITS.

Mr. E. W. King, Coggeshall, magnificent stand of Sweet Peas. Gold medal.

Mr. Elisha J. Hicks, stand of Roses. Gold medal.

Messrs. Dobbie and Co., Edinburgh, Sweet Peas. Silver-gilt medal.

Messrs. Wells and Co., Merstham, Carnations, Roses and rock plants. Silver-gilt medal.

Messrs. Bide and Sons, Farnham, Sweet Peas. Silver-gilt medal.

Messrs. George Jackman and Son, Woking, Roses and herbaceous flowers. Silver medal.

THE EDITOR'S TABLE.

Delphiniums from Langport.—Messrs. Kelway and Sons of Langport, Somerset, send us flowers of their Delphiniums, all of which are of exceptional merit. Among those that specially appealed to us were Dr. Lodiwidge (deep sky blue and mauve), Effective (Cambridge blue and mauve), Distinction (Oxford blue and violet), Decoration (pale blue and rosy mauve), Countess of Ilchester (pale blue) and China Blue (rich blue, with white eye). The value of these stately plants in the garden at this season cannot be over-estimated, especially when such varieties as those named above are grown.

National Rose Society's Show.—The great Rose show will be held in the Botanic Gardens on Tuesday, July 9, from noon to 7 p.m. Bands of the Royal Horse Guards and Scots Guards will attend.

The Gardeners' Royal Benevolent Institution. It is very satisfactory to observe the continued and generous support contributed to this admirable institution. At the anniversary festival dinner, recently held at the Grocers' Hall, City, subscriptions amounting to a grand total of £3,250 were announced by the secretary. With the exception of the Jubilee year this forms a record in the annals of the institution. A report of the gathering is given on the preceding page.

An Outing to Prested Hall, Kelvedon.—A special train left Liverpool Street at 11.20 on Saturday morning for that lovely old-world house known as Prested Hall, Kelvedon, the country seat of Mr. N. N. Sherwood. The guests and employés numbered 350, all of whom spent one of the most enjoyable days that it is possible to spend. Mr. N. N. Sherwood is the head of the firm of Messrs. Hurst and Son, wholesale seed merchants, and this is the fiftieth year in which he has been associated with this highly-esteemed firm.

National Chrysanthemum Society's Outing.—We are asked to announce that the annual outing of this society will take place on Monday, July 15,

when a visit will be paid to the gardens at Berry Hill, Taplow, by kind permission of the owner, F. G. Gledstanes, Esq. The trip will also include six hours on the River Thames, between Staines and Marlow, on the large steam-launch His Majesty. Tickets, 10s. 6d. each (inclusive of railway fares, steam-launch, lunch and tea), may be obtained from the secretary, Mr. Richard A. Witty, 72, Savernake Road, Gospel Oak, London, N.W. The party leave Paddington for Staines at 9.15 a.m.

Richmond Horticultural Society's Show.—The thirty-eighth anniversary of the Richmond Horticultural Society's Flower Show, held on Wednesday, June 26, proved an immense success; in fact, to a great extent was a record. Over five hundred entries occupied every inch of spacing in the four large tents. The committee, under the respected chairman, Sir Thomas Skewes-Cox, J.P., who, by the way, has held that position since the inception of the society, had worked hard, and it is satisfactory to record that their endeavours realised a successful result. The most noticeable features were the remarkably fine show of Roses and the good display made by the local amateurs in both flowers and vegetables. The table decorations were also decidedly above the average. The weather was kind and the attendance good, and it seems a pity that such a fine show cannot be extended to the second day. This would, without doubt, bring the show into the front rank, and induce more of the principal firms to exhibit. A one-day show hardly justifies the necessary expenditure, and with the facilities of travel to Richmond there should be no difficulty in getting a good attendance on the second day.

"Country Life" for week ending July 6 contains, among other articles, an illustrated account of "Headley Court, Epsom"; "Tales of Country Life: Black Knights," by Elizabeth Kirk; "The Art of Four-in-Hand Driving" (illustrated); "The Unconquerable Charm of Sussex" (illustrated), by Algernon Blackwood; "Law and the Land"; "Wild Country Life," by H. A. Bryden; "The Gipsies and the Water-Wagtail," by Harwood Brierley.

GARDENING APPOINTMENT.

MR. GEORGE COOKER, for the past eighteen months foreman at Erskene House, Bishopton, and previously general foreman at Monreith, has been appointed head-gardener to the Dowager-Marchioness of Bute, The Garrison, Millport. Mr. Cooker took up his duties on Tuesday, June 25.

OMISSION.—In our report of the Royal Counties Agricultural Show, published in our issue for June 22, we omitted to mention the exhibit of Ferns and Cacti shown by Mr. H. N. Ellison, 5 and 7, Bull Street, West Bromwich. A silver-gilt medal was awarded for this most interesting and in every way creditable exhibit.

CORRECTION.—We are asked to announce that the Carnation Mrs. Huson Morris, shown by Mr. G. Henley, The Gardens, Wretham Hall, Thetford, at the Royal Horticultural Society's meeting on June 18, which received an award of merit, is a Perpetual-flowering variety, and not a border variety as stated in last week's issue of THE GARDEN.

TRADE NOTE.

A NEW INSECTICIDE.

ALTHOUGH there are a number of old-established insecticides on the market, there is always room for more, especially when some improvement in their preparation has been effected. We have recently been experimenting with "Katakilla" Wash, manufactured and sold by Messrs. McDougall Brothers, 66-68, Port Street, Manchester, and find it very effective for practically all kinds of insect pests. It is very easily mixed for use, and if applied strictly in accordance with the directions is quite harmless to foliage. For exterminating green fly and caterpillars it is particularly efficacious, and we can confidently recommend it to our readers.

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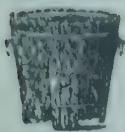
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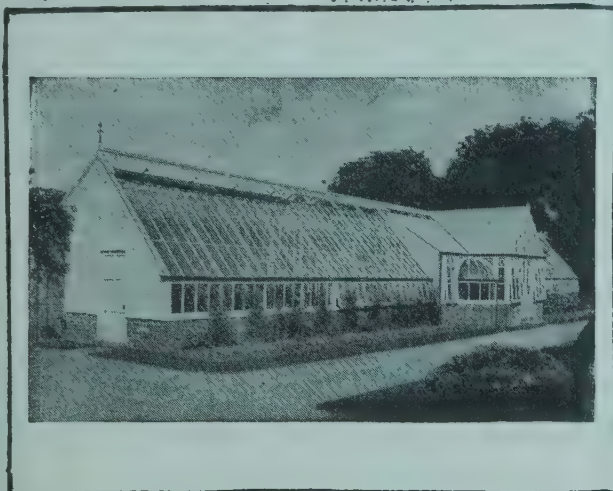
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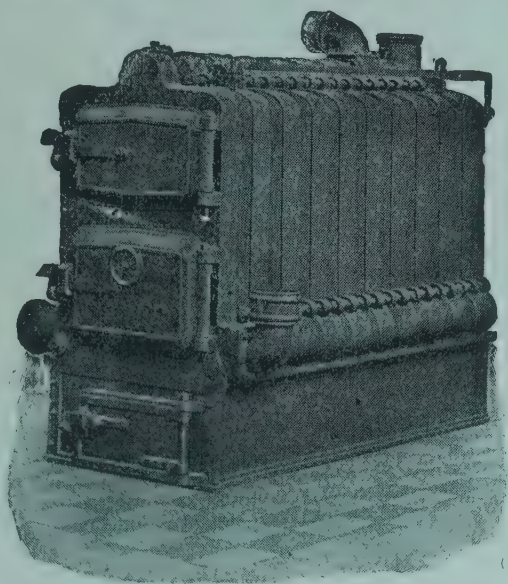
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THE GARDEN.

NO. 2121.—VOL. LXXVI.

JULY 13, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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NOTES OF THE WEEK.

An Interesting Martagon Lily.—*Lilium Martagon* Cataniae is a very deep-coloured Martagon Lily, darker in shade than the variety dalmaticum, but quite a good grower, though not increasing rapidly. It is by no means showy, but it is pleasing in its own quiet way, and is generally liked by those who see it and are not entirely wedded to gay or bright colours. It does well in an ordinary border where the soil is inclined to be light.

The Kilmarnock Spotted Orchis.—The Kilmarnock variety of the Orchis maculata is a scarce and very beautiful border or bog plant which is to be found in a few Scottish gardens. It was, we understand, found a good many years ago on a moor in the Kilmarnock district, and has been cultivated in gardens since that time. It is usually very fine in the garden of Colonel Maxwell-Witham at Kirkconnell, Newabbey, and there is at present a very good group in that of Mr. James Davidson, Summerville, Dumfries, where it has been looking very fine indeed in a border with a background of Cassinia fulvida. It is a really noble Orchis, with long, densely-flowered spikes of purple blooms and handsome spotted leaves.

Statice Suworowi.—This annual species of Statice with an awkward name, which was introduced from Turkestan in 1883, is, when grown in pots, of considerable value for greenhouse decoration, as its long, strangely-disposed spikes of blossoms attract attention by reason of their beauty and uncommon appearance. In colour the flowers vary from white to pinkish mauve or lilac. They also retain their freshness for a considerable time. In order to have good examples at this season, the seed should be sown early in the year. Besides this, the different shrubby forms which used to be so much grown as large specimen plants, such as Statice profusa, S. intermedia and S. Holfordii, are all desirable in the greenhouse, the pretty blue flowers being very effective, while, what is more, if they are cut before their beauty is over they may be dried for use during the winter months.

Killing Cutworms.—That poison bran-mash is the best thing to kill cutworms is the belief of Mr. A. L. Lovett, Crop Pest Expert of the Oregon Agricultural College, Corvallis. "The cutworms pass the winter in the soil as partly grown larvæ," he says. "They are in the soil in the spring when the ground is prepared for planting. The poison mash should be sown over the ground a few days before the crop appears. If there is no green vegetation, the worms eat the mash greedily, and the field is freed of them before the plants appear. For later treatment the only way is to put a small heap of the mash around the base of the plants to be protected. To make the mash, mix sixteen pounds of coarse bran, a pound of Paris green,

half a pound of salt, a gallon of any cheap syrup, and enough water (warm) to make a heavy mash. Poultry should not, of course, have free range where the poison is."

Rose Mme. Alfred Carriere.—This charming white Rose has been flowering particularly well in many gardens this year. Although the blooms are not so full as those of some other varieties, they are exceedingly pleasing, and, as they are produced over a long season, are often available at times when other Roses are devoid of bloom. We recently saw a huge specimen in a vicarage garden in Essex, the head of which was at least 7 feet in diameter.

A Good New Pea.—A new second-early Pea that has done remarkably well with us this year is Carter's International. It is a strong-growing variety, attaining a height of nearly six feet, and produces a heavy crop of large, slightly-curved deep green pods. These contain on an average ten large Peas each, the colour of these being a beautiful verdant green. This colour is fully retained when the Peas are cooked. The flavour is first-class, and we regard International as a good Pea in every respect. It was raised by crossing Early Morn with Duke of Albany.

Roses for Autumn Flowering.—Where a good crop of Roses is desired in the autumn, the bushes ought to have some attention at the present time. As soon as the summer flowers have faded, they should be cut out, removing each one or cluster down to the first plump wood-bud. This will induce the bushes to make new wood, which will bear flowers in the autumn. A dressing of some good fertiliser, sprinkled round the bushes and hoed in, will also benefit the plants considerably. If obtainable, a 2-inch-thick mulching of short, well-decayed farmyard or stable manure will be even better than the fertiliser.

Wart Disease of Potatoes.—The Board of Agriculture and Fisheries desire to inform Potato-growers that a case of wart disease (*Synchytrium endobioticum*, Percival) of Potatoes has occurred in Cheshire, and to remind them that all cases of this disease must be reported to the police or other officers appointed by the local authority for the purpose. Notifications may be sent to the Board, who will forward them to the proper quarter. The Board desire also to warn Potato-growers that in view of the rainfall of the past month, the Potato disease caused by *Phytophthora infestans*, De Bary, may be expected before long to attack the Potato crop, and they recommend that crops should be sprayed with Bordeaux mixture at once. This disease is not required to be notified. Leaflets as to both the above-named diseases may be obtained free of all cost on application to the Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W. Letters so addressed need not be stamped.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Beautiful Herbaceous Plant.—I am sending you some blooms of *Ostrowskia magnifica*, as I think it is one of the best herbaceous plants anyone can grow. I have twelve clumps altogether about the flower garden; three of the best are carrying 344 flowers, or an average of 114 fully-matured blooms to each plant. Some of the blooms measure 7 inches to 8 inches across.—H. G. W. [The flowers sent were remarkably fine; they are bell-shaped, and pale mauve in colour. It should not be overlooked that this handsome plant is rather tender. It does best in a sandy soil in full sun. In winter it is advisable to protect the tuberous roots with dry litter.—ED.]

A Good Border Plant (*Bahia lanata*).—The recognised name of this plant is now *Eriophyllum cæspitosum*, but it is generally cultivated as *Bahia lanata*. It does not always bear a good reputation for hardiness, but there is little fear of losing it in places with a moderate climate, wet in winter being one of its principal enemies. I saw a good plant of it the other day in Mr. James Davidson's garden at Summerville, Dumfries, where it has been in a herbaceous border for a considerable number of years. There it is taller than the generally-accounted height of from 6 inches to 15 inches, being about two feet high. It is a good plant, with small, pleasing, finely-divided leaves of a greyish or silvery appearance, and many small, bright yellow flowers. It makes a good border plant, but it is even more pleasing on large rockwork, where it hangs nicely over the stones. In a border it requires staking. Though a dryish soil is recommended for *B. lanata*, it does not seem to require this if the position is well drained.—S. ARNOTT.

Bedding Roses.—In the issue for May 11 of THE GARDEN an article on bedding Roses appears, in which the variety General Macarthur is highly extolled as a bedder; in fact, the writer adds he would prefer it—at least for autumn effect—to Richmond. Where the present writer is employed, the very opposite is the case; Richmond is far the more effective Rose. The writer quoted does not mention what soil he has to deal with, and this may account for the difference. We have a rather heavy soil and on clay. I am correct in saying that Richmond, with us, produces half as many flowers again as General Macarthur, blooms earlier and much more continuously. General Macarthur will beat Richmond for substance of flower, stronger foliage, and in being less prone to mildew attacks. I would hazard the statement that no Rose grown in a bed will make growth, form buds and come out in flower so quickly as Richmond. The variety nearest approaching it in every respect, with us, is George Reimers. They are hardly discernible one from the other when seen a little distance away.—C. T., Highgate.

Rose Conrad F. Meyer.—Both in my garden here and in my late garden in South Hampshire this Rose has proved most disappointing, though each has a good Rose soil. Early in May it begins throwing the loveliest blooms, larger than La France and almost as refined. It keeps it up for a fortnight or three weeks, and then the leaves get black spot, and in the course of ten days it is almost as bare as in midwinter; it recovers in a measure, but never gives another flower worth looking at. I have tried it in different aspects and with different

treatment, but the result is always much the same. My present plants are loosely trained to pillars. I much regret its failure, as it is so attractive in its earliness. Perhaps your correspondent "An Essex Reader," whose note appeared in last week's issue, might have some hints to give.—ROBERT PEEL SHELTON, Flimwell Grange, Hawkhurst, Kent.

Exhibiting Daffodils.—With reference to the note by "A Small Exhibitor," June 29, page 326, who suggests a revised word for "faking" and disagrees with those who condemn the practice of "improving" blooms for the exhibition bench, if we tolerate these stiff collars round the neck of our exhibition flowers to support their weak, flabby perianths, then we both encourage the creation of these feeble flowers and we knowingly mislead the public and persuade ourselves that these flowers are more even and perfect than they really are, as your correspondent Mr. Watts admits (see page 315) that he also was "almost converted" by these "neat little discs." Meritorious blooms require no "faking"; faked flowers from their very weakness condemn themselves, and must therefore suffer for the want of the necessary points which the former carries. Daffodil blooms for exhibition must be shown "looking their best," but they cannot be compared to the "débutantes appearing at a Levée." If "A Small Exhibitor" wishes to present her at Court, Mistress Daffodil must appear as she is. He might ask, in the words of Margaret Johnson, with slight variations:

"Will they laugh at your old-fashioned gown,
Daffodil?

At your simple and quaint little gown,
As you enter the (Court) of the town:
Pass you by with a sneer and a frown,
Daffodil?

Nay, tell them old fashions are best,
Daffodil.

Old friends are the dearest and best,
And the flower we would wear at our breast
(One without disc is the best),

Daffodil."

I for one would be sorry to see the day when faked blooms would be tolerated on the exhibition table or new varieties thus presented for awards.—J. E. D.

— I really must reply to my old friend Mr. Chapman. Let us see what he says on behalf of the faked flower; but, first of all, how does he know the flower I referred to was otherwise normal? Does he know which flower it was? I understood that it was the first bloom of a seedling, and therefore there could be no "otherwise" about it; and even if it had been a deformed bloom of an otherwise perfect variety, I say it is not the deformed flowers that we want to see at our shows. Oh! Mr. Chapman, how cross you must have been when you wrote that you suppose I would have "stuck up" the flower just as it was, and to tell us that you would not go to look at it! I can see the look of angry disapproval on your usually genial countenance. But really, seriously, if I did show a deformed flower, I should be the last to expect you to go out of your way to see it. Do you really mean to tell me that, if I stuck a paper collar on, it would make all the difference? It seems to me we have come down to the very root of the whole question—a flower that I would discard from a bed of seedlings, and which you would not look at, is to be faked up and to be accepted as a good and honest bloom. If this is so, heaven help the poor Daffodil.—W. A. WATTS

— So far there seems to have been few in favour of the suggestion of Mr. W. A. Watts of discarding artificial aid in exhibiting Daffodils, perhaps because the replies have come from those only who exhibit, and find it necessary to adopt these methods, for they surely must be the losers should paper collars be decided against by the judges. May I be permitted to write from the other point of view, namely, of those who visit the shows and for whom exhibitors exhibit, I believe? Of what value to us is a flower, for instance, which is dependent on a paper collar for its beauty of form? We go to shows to enjoy the sight of the wonderful results of modern hybridisation and cultivation, and to seek further beautiful flowers for our gardens, and if not to procure them at once, to take notes in order to be able to possess at some future date those which attract us most. How much more easily and with much less subsequent disappointment could we select them from flowers (and this does not apply to Daffodils only) exhibited in their natural state without any unnatural means of support! If some exhibitors feel that they could not do without the paper collars, could not they exhibit in a class in which artificial aid is allowed? Then we, to whom flowers in that class would be of no value, could pass on to select those which, in our own gardens with good cultivation, would be equal to those seen at the shows.—A. GARDENER.

Dianthus neglectus.—It is perhaps rather misleading to call this very lovely plant a "Glacier Pink," for *D. neglectus* (as well as *D. alpinus*, *D. callizonus* and *D. glacialis*) shows the most studious avoidance of glaciers or glacial levels. In fact, as I believe, there is no Glacier Pink, the alpine *Dianthus* all stopping a good way short of those high places which alone can fairly entitle their inhabitants to be called "glacial." The most flagrant misnomer is in the case of *D. glacialis* itself, which frequents, with *Primula intermedia*, the upper moors of the Engadine, and, above Heibgenblut, may be found luxuriating in the gutters by the side of the highway. *D. alpinus* appears in nature as strongly attached to the limestone as *D. glacialis* to the granite; it occupies all the turf of the Styrian limestones, between some six thousand feet to seven thousand feet. Thus also, and in the same situations and at the same elevation, grows *D. neglectus*, in a comparatively small district of the Western Alps, ranging from Dauphiné and the Greuans down through the Cottians and along the Maritimes. It climbs, indeed, rather higher than the others, ascending to some eight thousand feet; for instance, on the Col de la Croix, where in the fine turf it develops a dwarf and compact alpine form of great charm. But it is always a grass plant, growing in full soil. It is a very variable species (so, indeed, are *alpinus* and *callizonus*), and should always be bought or collected in flower, as there are many forms of lanky habit with thin and starry flowers. On the other hand, I have often found plants of dense, neat growth, with blossoms round and solid and splendid, the best of these, I am told, belonging to the Cottian Alps. On Mont Cenis the prevailing form is starry, though brilliant; on the Col de Pesio in the Maritime Alps it is especially gorgeous in size and colour. Finally, though this and all the alpine Pinks thrive well and show great beauty in the moraine, it is interesting to remember that they are all invariably plants of the upper alpine turf, having affinity of taste not with the high alpinos, such as *Campanula cenisia*, but with such lawn plants as *Viola calcarata* and *Viola alpina*.—REGINALD FARRER.

Rose Bennett's Seedling.—You were good enough some four or five years ago to put into your paper a photograph of a Bennett's Seedling white weeping Rose tree in the garden here. It has grown considerably since then, and this year it is a perfect picture. It measures 60 feet in circumference and is 9 feet high. It was planted fifteen years ago, quite a small tree. I enclose a photograph of it.—J. B. WESTROPP, *Holyport, near Maidenhead, Berks.*

Diplacus glutinosus.—This is not a new plant by any means, but it is becoming somewhat rare in amateurs' greenhouses. As a free-flowering plant of easy culture, amateurs who possess houses only moderately heated would find it a grand one to include in their collections. The blossoms, which are rich orange in colour, and in form like those of the *Mimulus*, look very beautiful on nicely-grown plants. It requires no artificial heat in the summer-time, and is a fine subject for dwelling-room windows. Cuttings of young wood are easily propagated in a sandy compost.—B.

Rose Marquise de Sinety.—The flowers and buds of this variety which appeared on the cover of THE GARDEN for June 22 are extremely good representations of the Rose itself, and I feel quite sure that many readers will decide to grow some plants after seeing them and reading the reference on page 316 of the same issue. Similar colours are much needed in the Rose world, and, as far as I am concerned, I must plead to a great liking for them. "P." gives the variety a good character as a heavy or clayey soil plant, and I can recommend it as a good doer in a light rooting medium, which proves it to be a fine all-round Rose.—AVON.

Brown Calceolarias.—One does not see as many brown or bronze-coloured Calceolarias in flower gardens now as formerly, say, twenty years ago. The yellow variety, or, rather, varieties, are much in evidence, too much so, I think, in many instances. They are to be seen in nearly all the beds, in the vases, and even in the window-boxes in many gardens, the general effect not being very pleasing. There is nothing wrong with yellow Calceolarias when judiciously used, the bad effect being apparent when the plants are misused, as before stated—planted too lavishly and mixed with other colours indiscriminately. The brown-flowered variety gives "tone" to a flower-bed; the blossoms are richly coloured, and, to my mind, very charming. There is nothing glaring about them, and they harmonise so well with other colours. I confess I am fond of them, and may be considered prejudiced in their favour. I would like, however, to make an appeal for their extended culture. The time will soon come when cuttings must be put in.—G. G.

FORTHCOMING EVENTS.

July 16.—Royal Horticultural Society's Exhibition. Lecture at 3 p.m. by Mr. E. A. Bunyard on "The Flowers of Apples and Their Aid in Identifying Varieties." Southampton Jubilee Show (two days).

July 17.—Cardiff and County Flower Show (two days). Bishop's Stortford Flower Show. Caterham Flower Show. Liverpool Horticultural Association's Sweet Pea Show. Luton Sweet Pea and Rose Show. Saltaire and Shipley Rose Show.

July 18.—Dunfermline Flower Show (two days).

July 19.—Birmingham Floral Exhibition (two days). National Rose Society's Show at Belfast. Handsworth Flower Show (two days).

July 20.—Royal Horticultural Society of Perthshire Show.

THE ROCK AND WATER GARDEN.

LINARIA ANTICARIA.

A PRETTY little Toadflax which does not appear to be known to everyone is *Linaria anticaria*, whose hardiness is not beyond doubt, but which usually sows itself so freely as to be practically as good as a perennial. It blooms the same season as sown if this is done in spring, but self-sown seedlings do not, of course, flower until the following year. Frequently the plants survive for several years, especially if on a piece of dry, well-drained soil, and a little attention in this respect will be well repaid by the longer life of the plants. *L. anticaria* is only a few inches high, and is of rather trailing habit. The leaves are narrow and rather glaucous in hue, and the pretty flowers are most variable in colour. Some are

P. farinosa is found cultivated in quantity in this country. Indeed, it will grow in most places if given moderate shade, moisture and a climate anything from that of the Alps to temperate. This quality needs emphasis, as some folk allege difficulty in growing it. The present writer can testify, out of a long experience, that in his level herbaceous border exposed to the sometimes pitiless Scotch climate *P. farinosa* not only forms large cushioned plants, which throw up their dainty blossoms, in spite of cold and rain, but seeds itself, which is indisputable evidence that the plant has found a home. The Bird's-eye Primrose has one little marked failing. Like other Primulas, only more so, it seems to forget that it must ever be of the earth earthy. It has a tendency to work itself out of the soil. This waywardness has to be corrected by replanting from time to time.

Some varieties of *P. farinosa* deserve to be mentioned. Perhaps the first place should be given to *Scotica*, a native of Sutherland and Caithness, where it grows in moist places. This



THE BEAUTIFUL AYRSHIRE ROSE BENNETT'S SEEDLING IN A READER'S GARDEN.

white, but there are shades of yellow, purple, lilac and buff, the greater number being decorated with a yellow lip and pretty reticulations of dark colouring. The whole appearance of this Toadflax is attractive, and it makes an excellent subject for a dry rockery or for a wall garden.

Dumfries.

S. ARNOTT.

THE BIRD'S-EYE PRIMROSE.

(PRIMULA FARINOSA.)

THIS beautiful little plant, with its small and graceful silvery leaves and dainty, delicately-tinted flowers, is sometimes called the Bird's-eye Primrose. The flowers, which appear in April or earlier, range in colour from lilac to purest white, and are borne in a many-flowered umbel on a slender spike, generally an inch or so long—longer, certainly, than the leaves from which it springs. It is as if one plant were saying to the careless passer-by, "You may fail to notice the modest grace of my leaves, but I have only to hold up to you my flower to gain the reward of beauty."

is an exquisite little Primula, with densely-powdered leaves and deep rich purple flowers with a yellow eye. Unfortunately, in my experience, *Scotica* always damps off after flowering. It may be that its heart is still "in the Hielans." However, as it seeds freely and the seeds germinate well, there is no difficulty in maintaining a stock. The Primulas *algida*, *Warei* and *magellanica* are only varieties of *farinosa*, and are hardly to be recommended, as *farinosa* will produce from seed plants and flowers equal in beauty to these so-called named varieties.

Longiflora is really an enlarged form of *farinosa*, but its leaves are not mealy and the flowers are much larger and of a deeper purple colour with a white eye. By far the most robust of this lot is *frondosa*, a plant resembling *farinosa* in most ways. What it has gained in strength it has lost in beauty. The flowers are of a light lilac colour. It comes from a far country—Thrace, but seems to have forgotten all about it, for it grows with us anywhere it is planted and grows vigorously. It is, however, very temperate; it does not like too much liquid.

Morelands, Duns.

JOHN MACWATT,

THE ROCK ROSES.

THE Cistuses, or Rock Roses, consist of numerous evergreen shrubs, the greater part natives of Southern Europe. This being a comparatively mild locality, favourable positions are necessary for their successful cultivation in this country. These, however, are not difficult to find in most gardens, even in the North, where the most likely situation will be at the foot of a sunny south or west wall. Their value for certain positions in the rock garden is well shown in the illustration of a magnificent plant of *Cistus salvifolius* in the rock garden at Wisley. A specimen dotted here and there of the dwarf-growing Rock Roses is useful



CISTUS SALVIFOLIUS GROWING AMONG ROCKS IN A SURREY GARDEN.

to relieve the flat appearance of low-growing alpine plants on a sunny rockery. Positions for a group or two can usually be found on the top of a rockery with perhaps a background of trees, where ordinary low-growing alpine plants would not be suitable. Dry, sunny banks or slopes form ideal spots to mass the Cistuses, for they thrive and flower better in poor soils which are well drained than when growing in rich loamy soil.

Seeds and cuttings provide ready means of increase. August or September is a good time to insert cuttings, which will root in a cold frame or in a propagating-frame with slight bottom-heat. Seeds are best sown in spring. As Rock Roses are somewhat difficult subjects to transplant, they should be grown in pots till large enough to plant in their permanent positions. The greatest profusion of blossoms is produced during June and early July. A selection of the most useful species should include *C. corbariensis*, a white-flowered hybrid, dense-growing, about two feet high; *C. cyprius*, large white flowers with dark red spots at the base of each petal, one of the best tall-growing kinds; *C. laurifolius*, the hardiest species, has white flowers and grows 4 feet to 6 feet high; *C. ladaniferus*, the Gum Cistus, the large white flowers blotched at the base, one of the most popular species, and *C. salvifolius*, so named in reference to the Sage-like leaves, flowers white with yellow centres.

THE ROSE GARDEN.

ROSE CLIMBING MRS. W. J. GRANT.

A FEW years ago I put in a plant of this Rose in a border near the back wall of a small greenhouse. The position was a hot one, especially for a Rose, and it did not suit the variety above named. The growth was very unsatisfactory, and few flowers opened. Then I lifted the Rose and planted it near a pillar in the open garden. No sooner had the plant recovered from its removal than it was unavoidably necessary to again shift it. This

Budding, like pruning, is dealt with every season, and may well seem a little tiring to old hands; but it is of such general interest to the beginner that a few words must be given annually for the better guidance of the fresh grower.

Although this subject was touched upon in an illustrated article in *THE GARDEN* for June 22, page 321, a few further practical hints may also be welcome. Under no circumstances should the operation be forced—I mean, we must not meet with any difficulty in raising the bark upon the stock, nor of taking the Rose bud from the shoot of growth and the removal of the small portion of wood covering the seat of the eye or bud. To accomplish this easily the sap upon both stocks and sticks of Rose buds must be active, and more depends upon this condition than any set dates. If it cannot be done easily, we must perforce disturb and injure the bark, also the glutinous sap so necessary to a quick and sound union of Rose bud and stock.

Too many amateur budders do not sufficiently realise how necessary it is that the eye or seat of the Rose bud should be in a certain condition. If too old or too young it is waste of material and labour. A little observant thought will show when this seat is in the correct stage, as it will be plainly visible and in a condition to rest firmly down upon the exposed wood of the shoot it is to be attached to. I do not propose going deeply into the methods of budding. A few illustrations, or, better still, a practical demonstration, will make the whole matter much plainer than any written words could possibly do. Another fault lies in not tying tightly enough to ensure the seat resting firmly to the wood. Cutting into the stock too deeply when making either a longitudinal or transverse cut in the bark is a frequent mistake. Just penetrating the bark is ample; any deeper only injures, and is often the primary cause of failure.

Have everything ready to hand, and avoid any risk of the sap drying up, whether upon the bud or stock. If the buds do not come away freely, cut off the bottoms of the sticks afresh and plunge in water. Many buds are almost hopelessly dried up through the neglect to cut away green leaves directly, these absorbing all the sap in a wonderfully short time, and no after-moisture from water absorption can possibly be so good as the natural sap. If the bark of the stocks clings at all, let them be watered freely a week or so before budding. The sap artificially encouraged in the stock by this means is valuable. It is, in fact, quite natural through being supplied by root action, and is altogether different to moisture obtained by soaking a severed shoot.

Always endeavour to work the Rose bud as nearly upon the roots of dwarf stocks as you can, and similarly as close to the main stem as possible when operating upon the side shoulders of hedge Briars growing in standard form. This is of great importance in avoiding suckers, and we should aim for as little of the stock growth as possible. If dwarfer stocks are properly prepared and planted, as advised in a note at the planting season, it is not difficult to work the Rose bud direct upon the base of the roots, and thus none but suckers, which are sometimes formed from the roots themselves, can be produced. The plants are, to all intents and purposes, upon their own roots, none but the Rose being able to develop, and we get the full benefit of more vigorous foster-roots.

As time goes on and the stocks naturally swell from growth, the ties will need overhauling and releasing against constriction. Any failures, too,

time it was transferred to a border on the north side of a 6-feet fence. Although some shade was thus afforded the plant, it got plenty of light, and the sun's rays had some effect on it over the top of the wooden fence. The plant began to improve very soon after it was planted in this north border, and has since borne some lovely blooms, exquisite in form and colour, and worthy of a stand in an exhibition, although no special attention has been given to it. Judging from my experience of this Rose, it seems to be a variety that does best in partial shade. The variety would do best, no doubt, on the north side of a span-roofed house when planted in glass structures, but I should like to have "P.'s" and other Rose experts' views. They would be interesting and useful to others besides myself.

SHAMROCK.

WORK AMONG THE ROSES.

SINCE penning my last notes we have been favoured with several very welcome showers, and the influence these have upon insect-life has once more been demonstrated. Scarcely any insects approve of wet, and the rains have had a wonderful cleansing effect. This is only one more proof of the good syringing does, and should encourage a more general use of weak insecticides at all times.

Perhaps the most important work among Roses now is budding, which should soon be commenced.

can generally be seen in three to four weeks from budding, when it is often not too late to insert a second bud. But if we take due care as regards the condition of stocks and buds, also not to muddle the operation and bruise in any way, there will be very few failures. So far as material for tying in the bud is concerned, I have no choice between raffia, bast, or worsted. In the latter case more care against possible constriction is needed because of its more enduring character, while raffia will frequently work loose or decay about the proper time.

I want to call attention to a Rose that has been particularly good this season; that is, Sarah Bernhardt. As a dark and very sweet-scented maroon-shaded Rose it is excellent, of good shape, free-flowering, and a splendid pillar or wall Rose. We very much needed a good dark bloom in this connection, and I have no fault to find with Sarah Bernhardt. Some of my early flowers have been almost as dark as Prince Camille de Rohan, and very similar in size and form. A. P.

THE FLOWER GARDEN.

BIENNIALS AND PERENNIALS FROM SEEDS.

SEASONABLE REMINDERS.

SUCCESS in gardening operations, be they large or small, depends not a little upon doing a thing at the right moment. This is as true of seed-sowing as it is of planting or transplanting, and by the observance of such things, in conjunction with obeying the minor details or daily routine that should come between, the best results are most likely to follow. By starting now, and by sowing seeds of, say, Antirrhinums, in the open ground, one may secure a sumptuous display of these flowers in June and July of next year that will not only be a joy to himself, but the wonder—probably the envy—of his neighbours. In doing such work as this in season the amateur is also doing it at practically no cost, since the Antirrhinum or Snapdragon is, when so treated, to all intents and purposes a hardy perennial, *i.e.*, one capable of taking care of itself in the open garden. In like manner Canterbury Bells, Sweet Williams, Cornflowers, Wallflowers, Foxgloves, Myosotis, Pansies, Violas and others may be treated, and with the best possible results, because of the sturdy examples which follow intelligent treatment. In this latter phrase is naturally included the sowing of the seeds, and there is no way to compare with that of

Sowing in Drills.—By arranging these 9 inches asunder, or more if space permits, room is afforded for weeding, for stirring the soil, for thinning the seedlings, and for any other work which may be necessary. This sowing in drills one might call the systemised plan, as opposed to the haphazard method of broadcasting, which, if not of a slovenly nature, is virtually impracticable, seeing that it excludes the cultivator from the land for the time being. The position of the seed-bed is of some importance, and while sheltered as much as may be,

should be also away from the area of large overhanging trees, which are capable of much injury to the seedlings. The greatest evil, however, is the tendency to draw the seedlings early into a weak and spindly growth, from which they are unable to recover. Hence select a position apart from trees, a border having a south-west aspect being very good.

Sowing in Frames.—Frame-sown seeds have an advantage over those sown in the open, in that the former may be kept secure from birds and animals generally, may be afforded shade should occasion require it, and likewise be given protection from heavy, pelting rains. A considerable drawback to the frame, however, is the arranging of the soil-bed at the same angle as the light, the result being that the seedlings at the lower end—the point where, naturally, most moisture collects—are usually saturated, while those at the upper end suffer from the opposite extreme of dryness. Hence a nearly or quite level surface should be arrived at.

Preparation of the Soil.—The soil of the seed-bed should be well prepared by digging, and particularly so by being finely pulverised. The upper portion may be sifted to rid it of stones and other rough material, while its enrichment will depend entirely upon local conditions. It is important, however, that the soil of the seed-bed be in good heart, since no good results can accrue from a soil of a poor or impoverished nature. The addition of very old manure might, therefore, be necessary

a twofold advantage, as a broad-bottomed drill permits of a wider distribution of the seeds, in conjunction with a firming and levelling of the trench, not possible by the first-named processes. A lath, too, of half an inch thickness, or rather more, pressed its full depth into the soil is quite sufficient for a large number of seeds, whether of the biennial or perennial classes. In such circumstances a little finely-sifted soil must needs be added for a covering. When all are sown and each line or drill is duly labelled, a nice watering should be given from a fine-rosed watering-can.

Subsequent Treatment and Generalities.—Hot weather immediately following the sowing of the seeds makes much watering necessary, and the twain do not favour a good growth. By covering the seed-bed with scrim, tiffany, or thin sacking, excess of watering is avoided during the early weeks, while birds and other tormentors of the seed-bed are kept at bay. Seeds of such as Pansy, Wallflower, Viola, Sweet William and others of known quick vegetation might be kept together at one end of the plot for convenience and special treatment, while those of large-leaved kinds, as Hollyhocks and Canterbury Bells, should be given greater room both in and between the rows. This is of the utmost importance if the plants are to be permitted a free and full development while young, and once above ground, during August and September, considerable progress is made. Gaillardias, Coreopsis, Heucheras, Antirrhinums and Columbines,



AN EFFECTIVE GROUP OF HEUCHERAS. SEEDS MAY BE SOWN NOW.

in certain instances. If slugs are known to infest the soil, give a dressing of one of the soil fumigants now in vogue, working it in freely to about six inches deep.

Depth to Sow the Seeds.—With a finely-prepared surface soil it will be easy to draw quite shallow drills for sowing the seeds. These may be formed by a V-pointed hoe and a line, by drawing a 2-inch-wide lath or stick close to the line, or by slightly pressing into the soil a 2-inch-wide lath usually kept for the purpose by gardeners. This last has

which, with many other perennials, would be destined to remain in the seed-bed all the winter, would be best as companions, while for Polyanthuses and all the Primula tribe a cool nook should be looked for apart. The lovely scarlet-flowered *Gilia coronopifolia*, a tender biennial, is a plant for frame or greenhouse treatment; Auriculas of a choice or even good border strain would be best sown in pans or boxes; hardy Cyclamen, Anemones of the *A. blanda* and *A. hortensis* groups, with *Chionodoxa* and other tuberous or bulbous rooted

plants, should be treated in a frame, hand-light, or in the open ground in a position not likely to be disturbed for some months.

The following are some of the many kinds which may be sown at the present time. The lists make no pretence at completeness, however. The majority are available in many colour shades: Perennials. — Gaillardias, Coreopsis grandiflora, Heucheras in variety, Auriculas, Antirrhinums, Anemones (many kinds), Campanula pyramidalis, C. p. alba, Campanulas (various), Carnations, Hollyhocks, Cyclamen (hardy), Polyanthus, Primulas, Columbines, Chionodoxa, Alstroemerias and Delphiniums. Biennials, &c.—Violas and Pansies, Canterbury Bells, Sweet Williams, Foxgloves, Brompton and other Stocks, Wallflowers, Myosotis (Forget-me-not), Cornflowers, Gilia coronopifolia, Iceland Poppies, Dianthus Heddewigii, Dianthus

Happily, however, for our gardens, the herbaceous Pæony suffers but rarely, or to any great extent, from the causes named, though the Tree Pæony planted in exposed situations often does. In the present circumstances, therefore, I am persuaded that the great heat and drought of last year, aided not a little by the prolonged drought of April and May of the present year, are primarily—probably absolutely—responsible for the failures one has in mind.

The herbaceous Pæony is possessed of a voracious, almost insatiable, appetite, and if this in some degree is not satisfied, the work of which the plant would otherwise be capable is not done, or, at least, only imperfectly. It is too seldom recognised perhaps that, given the best cultural treatment, the Pæony is a plant of giant stature—4 feet or more in height, and flowers, both in size and numbers, in proportion

the present year would have been unknown. Such failures, however, are among the teachings of the years, and as the seasons vary, so must our treatment of the plants we grow vary if all their good attributes are to be brought to light. Obvious object-lessons by the way are never lost to the observant gardener, who in his own way commits them to the brain, or to his diary, in order that he may cull therefrom as occasion demands; and the amateur, if he would succeed, must do likewise. An essential in the case, however, is an increase of knowledge concerning the plants. "He that questioneth much shall learn much" is a well-known axiom; and seeing that the Editor of THE GARDEN welcomes enquiries relating to all topics in gardening, there is no reason why every reader should not be well posted up. Culturally, at the moment there is nothing calculated to do

the Pæony so much good as copious waterings, varied with occasional doses of liquid manure, and there need be no half-heartedness in their application. Such waterings will strengthen and develop leaf and stem growth to an appreciable extent, and these in turn will give back to the presently forming crown-buds the fullest meed of the elaborated sap so obtained.

Hampton Hill. E. H. JENKINS.

SEASONABLE NOTES ON CARNATIONS.

Insect Attacks.—During all the years that I have grown Carnations they have never been attacked to anything approaching the same degree by green fly as this season. The sparrows, happily, left the growths severely alone, and their condition was perfect until the green fly came, and it has since been a hard task to keep the enemy in subjection. Half-a-dozen prepared washes have been tried on different plants, and in no case has there been a failure where the accompanying instructions were rigidly followed; but, unfortunately, not one would prevent a recurrence of the trouble, therefore repeated dressings were imperative to satisfaction. The old-fashioned Quassia, soft soap and paraffin solution cannot be beaten; but when such excellent washes can be purchased at reasonable prices

from advertisers in THE GARDEN, it is folly to trouble to make one's own.

Layering.—The propagation of Carnations is almost exclusively done by layering the shoots during the present month, and readers are urged to put the task in hand and carry it to completion as soon as possible. One would not suggest that it must be finished in July, but the desirability of it cannot be questioned. A plant that has had time to build up a splendid rooting system will undoubtedly stand through the winter better than one that is imperfectly rooted, irrespective of whether the winter is to be spent indoors in small pots or in the beds and borders of the open garden. The earlier the layers can be prepared and pegged down, the better will the opportunity for excellent rooting be; hence the advice to do the work quickly. No phase of propagation is really more simple than layering, but the fact that excellent judgment and considerable skill are needed cannot be disputed for one moment. If the incision that forms the



A FINE BUSH OF THE JAPANESE LILAC. (See page 356.)

chinensis, and Intermediate Stock (sow preferably in pots or pans).

PÆONIES.

If one might judge by the evidences of the failure of these plants to flower—blindness so-called—that have come to hand during recent weeks, there would appear to have been something akin to an epidemic prevailing among the Pæonies in many quarters. One correspondent, in sending a large handful of buds, says "there are hundreds like them," hence the display must of necessity have been reduced to a minimum. Now, in a general way Pæony buds are only affected by severe frosts in spring, and should these occur during the nascent period—the moment when the petals are virtually in course of formation—the result is likely to be most serious. Frosts at a later date, when the footstalks of the flower are extended and the buds are thrice as large, are less to be feared, and the worst that happens is a few damaged guard or outer petals.

Too often the plants seen in gardens are little more than one-half of this height, their thin stems and meagre growth demonstrating to the specialist that only a starvation diet has been within their reach. Years ago, when exhibiting the flowers of these plants, my specimen Pæony beds had their surfaces purposely arranged *below* ground-level, in order that watering to saturation point could be more easily and effectively done. The flowers I have seen this year of most double sorts—I make exception of the magnificent single Japanese grown by exhibitors—have been but little more than one-half their normal size, and the fact speaks for itself—the specialist succeeding by reason of his knowledge, by appreciation of the requirements of the subject, and by prompt application of the same. Doubtless, had the moisture-loving requirements of these plants been known and met in April and May last, when farmers and gardeners alike were suffering from an almost unprecedented spring drought, the many failures of

essential tongue is made too high up, callusing will not proceed at all satisfactorily; while if it is made too low down where the stem is more or less woody, the result will be a failure in a large proportion of, if not in all, instances. The tissues at the point of cutting should be sound and neither hard nor soft. The appliances requisite are easy of provision, since they consist of nothing beyond a knife, which must be as sharp as, or sharper than, a razor, and a supply of pins or pegs. Carnation-pins have been on the market for years (Sydenham offers one which is excellent), and the price

is reasonable, or ordinary hairpins can be utilised with success; while if a supply of pegs made from the dried stems of the Bracken Fern are at command, nothing better could be desired. Given these things and a steady hand, success is bound to follow. Round each plant that is to be increased a mound of fresh soil ought to be built. A mixture of equal parts of fibrous loam and sweet, flaky leaf-mould, with a sufficient admixture of sand to keep it sweet and open, cannot be beaten for the purpose. It must be made moderately firm before starting, and then and afterwards should be maintained pleasantly moist. On varieties which make "grass" freely all weak shoots may be discarded, but in others that are not so prolific all must be retained, or there may be a shortage of stock. The stem is grasped firmly in the left hand and raised slightly. Then remove a few of the lowest leaves, and with the sharp knife make a cut from beneath running upwards through a joint for approximately 1 inch, and the necessary tongue with a clean wound will be formed. To insert this, the tip of the shoot is lifted at about right angles to its base to open the incision widely, and in that position it is secured, pegged down to the soil of the mound; covering with a little soil completes the operation. A light soil containing sand and sifted leaf-mould is preferred. It is the custom of some cultivators to put a small stone or a piece of stick in the incision to prevent closing, but when reasonable care is exercised in pegging down this is neither necessary nor desirable. The details in regard to every shoot are identical, and no one need fear that the result will be a failure if the simple instructions given are followed.

F. R.

THE TREE FLAX.

(LINUM ARBOREUM.)

THIS is a free-flowering dwarf shrub for a warm, sunny border and the rock garden. It requires a light, well-drained soil, for which reason, when preparing the ground previous to planting in some gardens, the plants are more likely to succeed if a quantity of old mortar rubble be worked in. In open and rather exposed positions the Tree Flax, being a little tender, is liable to damage in winter.



WISTARIA MULTIJUGA IN A BERKSHIRE GARDEN.

The plants in such positions may be afforded protection with a few Yew or Spruce branches during severe weather. Cuttings made of the young shoots during July and August root fairly easily in a slightly heated propagating-frame or gentle hot-bed. The flowering season is May and June. The flowers are yellow and produced in great profusion. Even on a poor stony soil it is quite a success. *Linum arboreum* a native of Crete, was introduced in 1788 and grows 9 inches to 1 foot in height.

TREES AND SHRUBS.

A BEAUTIFUL WISTARIA.

SEND you a photograph of the beautiful *Wistaria multijuga*, growing here in the garden of Captain F. G. Coleridge, who planted it about forty years ago at the base of a Spruce Fir, which it has taken sole possession of, there being only one branch of live wood left in the tree. Of Wistarias I think

this to be the most beautiful. When once it starts to bloom, every small shoot produces from three to six racemes of delightful sweet-scented flowers, many of these racemes exceeding three feet in length, with as many as 160 individual flowers, and often more; the longest raceme I measured this year was 38½ inches. Where the plant can be grown in this way a most charming and effective display is produced. Last year, owing, no doubt, to the very hot season, a large number of seedpods were produced, some containing one seed and some two seeds, many of which ripened, and from which we have raised several plants. Although seed-pods are generally produced every year, it is very seldom that they ripen, as they are usually destroyed by early frost.

W. H. SCOTT.

Twyford, Berks.

BERBERIS CANDIDULA.

THIS dwarf-growing Barberry may occasionally be met with under the name of *B. wallichiana* var. *pallida*, though it is a rare plant and one which has only been grown during the last few years. It forms a low-growing shrub of dense habit, with stiff branches clothed with ovate evergreen leaves, the largest of which are

rather less than an inch in length. Several are borne together from every bud, and at the base of each leaf cluster three strong spines are produced, each one being quite a third of an inch long. The leaves are dark green, glossy above and silvery beneath. The apex is terminated with a short spine. The yellow flowers are usually borne singly from the leaf-axils. They are large for Barberry flowers, and showy. It is a plant which might well be planted on a rock garden, or it is suitable for planting in a bed on the margin of a lawn where a shrub

9 inches to 1 foot high is required. It may be raised from seeds or from cuttings taken late in the summer. *B. candidula* is a native of Bhotan, but the same plant appears to have been received from China.

THE JAPANESE LILAC.

(*SYRINGA JAPONICA*.)

THIS is a very distinct and handsome shrub, native of Japan. The average height of a mature bush is from 7 feet to 10 feet, the spread of the bush being about the same as the height. The specimen shown on page 354 is twenty-five years old. The panicles, which average 8 inches to 9 inches in length, are so densely flowered as to appear almost like plumes. The colour is creamy white, fragrant, but not so pleasing as the common Lilac. The season of flowering is from mid-June onwards to mid-July, thus being a particularly valuable shrub, for by this date

stature and the stage of blossom development, but all alike are in perfect health, and full of promise of the bountiful seed crop that is so much desired not only by the proprietors of the business, but also by their most capable and experienced manager, Mr. Andrew Ireland.

To examine each plant in an area of ten acres is no light task, and I am not going to pretend that I did it, but I was forced by Mr. Cuthbertson, the principal of Messrs. Dobbie's, and Mr. Ireland to do my duty to a reasonable degree, so that it is safe to assert that I saw anything from five to eight acres in detail. I sought diligently for traces of "streak," because I felt that if it was in evidence where an acknowledged expert was in control, some of my readers would feel an element of satisfaction. I failed to find it, and Mr. Ireland was on the contemptuous side when I spoke of it. His idea appears to be that when plants are rationally grown, no "streak" or other trouble will arise,

who has yet been born. When the rule to cut down applies to other scribes I do not worry, but when I am forced to observe it myself I think it wrong, and in the present instance I am sure that all Sweet Pea readers of *THE GARDEN* will agree with me. I wanted to mention half-a-hundred meritorious varieties, but space forbids. The Marquis, true, is splendid, and Stirling Stent with a little more vigour would take some beating as a garden Sweet Pea. The two ladies—Mrs. Cuthbertson and Mrs. Andrew Ireland—are absolutely indispensable in the garden, precisely as they are in their respective homes. Sunproof Crimson and Dobbie's Scarlet lend that richness which is so desirable, while Lavender George Herbert and Mauve Queen afford the opportunity for choosing the one that suits the purse the better. Brunette all will grow, because it is perfectly distinct, and none will fail to admire Duplex, Mrs. Hugh Dickson, Edrom Beauty, Lady Miller, Elfrida Pearson, Thomas Stevenson, Dobbie's Cream, John Ingman, Nora Unwin and Etta Dyke. I could easily mention others just as desirable in their way, but I must obey the order to stop. HORACE J. WRIGHT.

THE FRUIT GARDEN.

WORK AMONG THE STRAWBERRIES.

AS soon as the plants have been cleared of their fruits, no time should be wasted in getting all the old, useless leaves, and runners if not required for stock, removed, so that the new growth and crowns for the production of a good crop of fruit next season may have ample time to develop. If the plants are in the least infested with red spider or mildew, give them a thorough dressing with Abol or some other safe insecticide, after which slightly loosen the surface between the rows and follow with a good mulching of thoroughly-decayed manure. This method I have now practised for many years, and am well satisfied with the results, especially where the soil is light and porous. Deep, rich soil of a somewhat heavy texture should be sparingly manured, otherwise the plants may grow too much foliage and prove less fruitful.

The Best Varieties.—Our first variety to ripen in the open this year was Royal Sovereign. We gathered our first dish about June 1 from young plants layered last July, and from two year old plants about nine days later. We have for many years depended almost entirely on this variety, both for pot culture and early supplies outside, and it is, I consider, for those purposes the very best to grow. Leader, with me, although a heavy cropper, does not do so well as several others, and the fruits are too soft and coarse on our light land. President and Sir Joseph Paxton succeed very well, and Laxton's Latest, Reward, Givon's Late Prolific and Waterloo serve us well late in most seasons.

Forced Plants.—Those who intend to plant out old plants that have been forced, with the hope of securing a good crop next year, should get them out without delay into good, deeply-cultivated land. Fully 2 feet apart between the rows must be allowed, and the soil about the roots should be made firm. If the land is already prepared, all that will now be necessary is to hoe and rake it over, stretch out the line, and plant firmly. The roots should be thoroughly moistened before turning them out of the pots.

H. MARKHAM.

Wrotham Park Gardens, Barnet.



LINUM ARBOREUM, A DWARF SHRUBBY PLANT FOR THE ROCK GARDEN OR SUNNY BORDER. (See page 355.)

a goodly proportion of the beautiful trees and shrubs of our gardens are past.

NURSERY NOTES.

SWEET PEAS AT MARK'S TEY.

THERE are many beautiful displays in the fields and gardens of all the counties of England at the present time, but after visiting Messrs. Dobbie and Co.'s seed farms at Mark's Tey and seeing the ten acres of Sweet Peas, almost all in full glory, it does not seem that there possibly could be any sight more delightful. Hundreds of thousands of magnificent plants are accommodated in thousands of yards of land, and among them may be seen those fast-setting seeds and others that have not yet reached their zenith of prolific flowering. There are plants from seeds sown out of doors in the autumn, others from seeds sown in cold frames at the same time, and still others from seeds sown in the spring, and they differ materially in

and I am firmly of the same opinion. The Sweet Peas at Mark's Tey are magnificently grown, but they are in no sense overfed, nor do they have anything beyond natural manures, and no trace of disease of any kind could be seen in the place.

Naturally enough, the principal part of the space is allocated to the choicest varieties grown expressly for the production of seed, but there are many rows devoted to novelties of the firm's own raising and not yet in commerce, as well as to introductions from other seed houses at home and abroad. The whole of these varied considerably in merit, and probably the majority of them will never be seen again; but the trueness of the British strains was far in advance of that of the imported seeds. Several of Mr. Cuthbertson's own crosses demonstrated the careful manner of working, since all the seedlings of the first generation were identical, and Mr. Ireland had sown the seeds in the precise order in which they formed in the pods.

The Editor says that I must cut my notes short, and editors are stricter martinets than any soldier

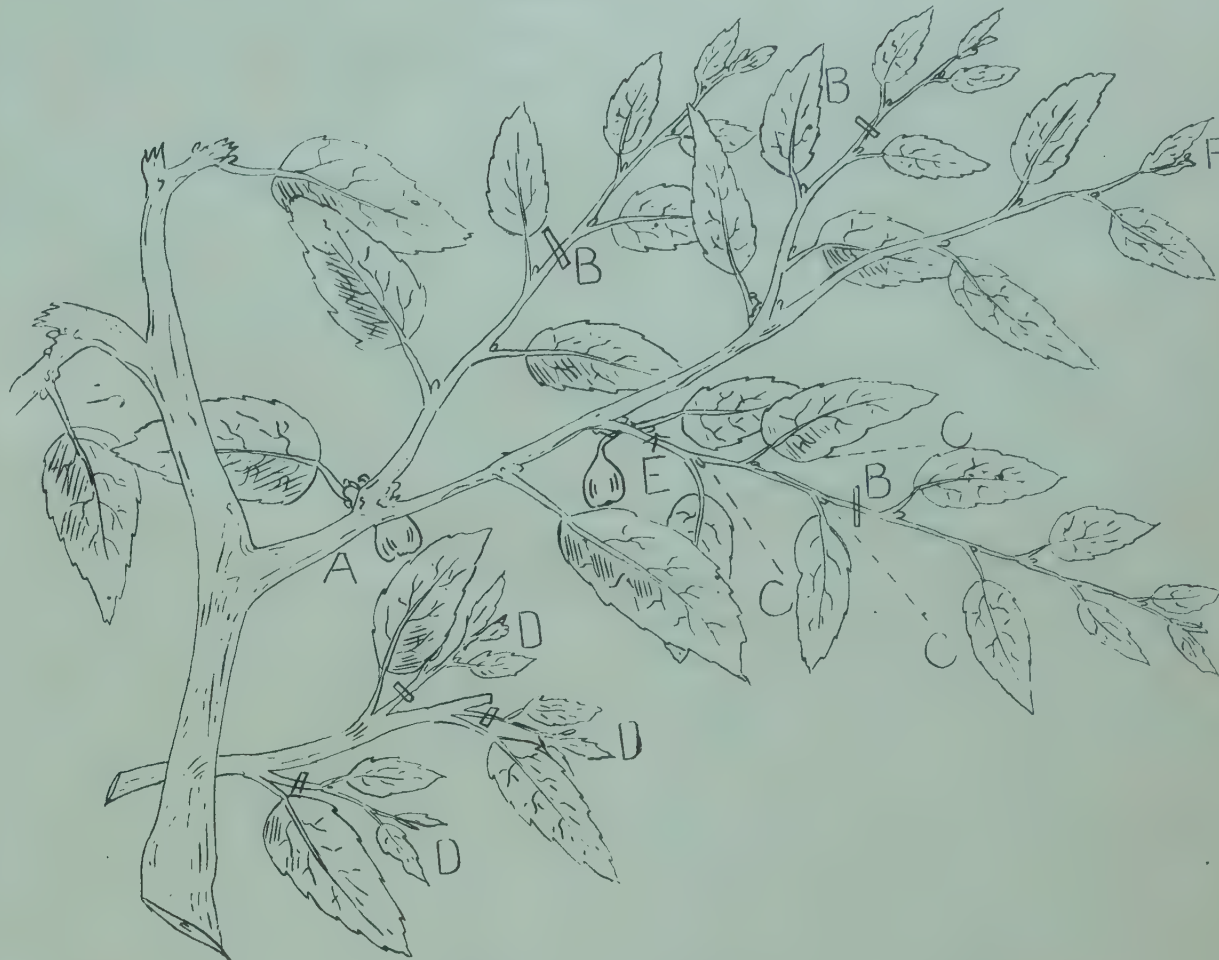
GARDENING FOR BEGINNERS.

THE SUMMER PRUNING OF FRUIT TREES.

A GENERATION ago the summer pruning of hardy fruit trees was not carried out so extensively as it is at the present time. Winter pruning was then mainly depended upon, but cultivators now know the value of summer pruning.

It does not entirely obviate the necessity for winter pruning, but it lessens the work then and has other essential advantages. For instance, in our country we sometimes fail to get a very sunny summer; and the young wood does not mature. The timely removal of surplus growths admits light and air to the basal buds and leaves retained, and the fruit growing on the trees gets much benefit, too, the crop being heavier than when summer pruning is not done. A healthy fruit tree will make a great deal of young wood during the summer months. This is natural, and in due course the tree will become fairly fruitful, even if it does not receive any pruning at all; but the specimen would grow into a large one, and, besides being of bad shape, it would probably be quite inconvenient to have it in a small garden. In a restricted area few untrained, unpruned trees could be grown. The centre would be choked with useless wood, and the fruits matured would be on the outside branches only. In many of our old orchards such trees are to be seen in these days; but we wish to advance in the art of fruit culture, and in doing so summer pruning of the young wood is now carried out, with marked success.

By summer pruning we restrict the size of the tree and divert the nourishment of the specimen to the buds, main leaves and fruit. Judiciously done, this pruning not only prevents any waste of the strength of the tree, but helps to prepare it to produce and mature a good crop of fruit the following year.



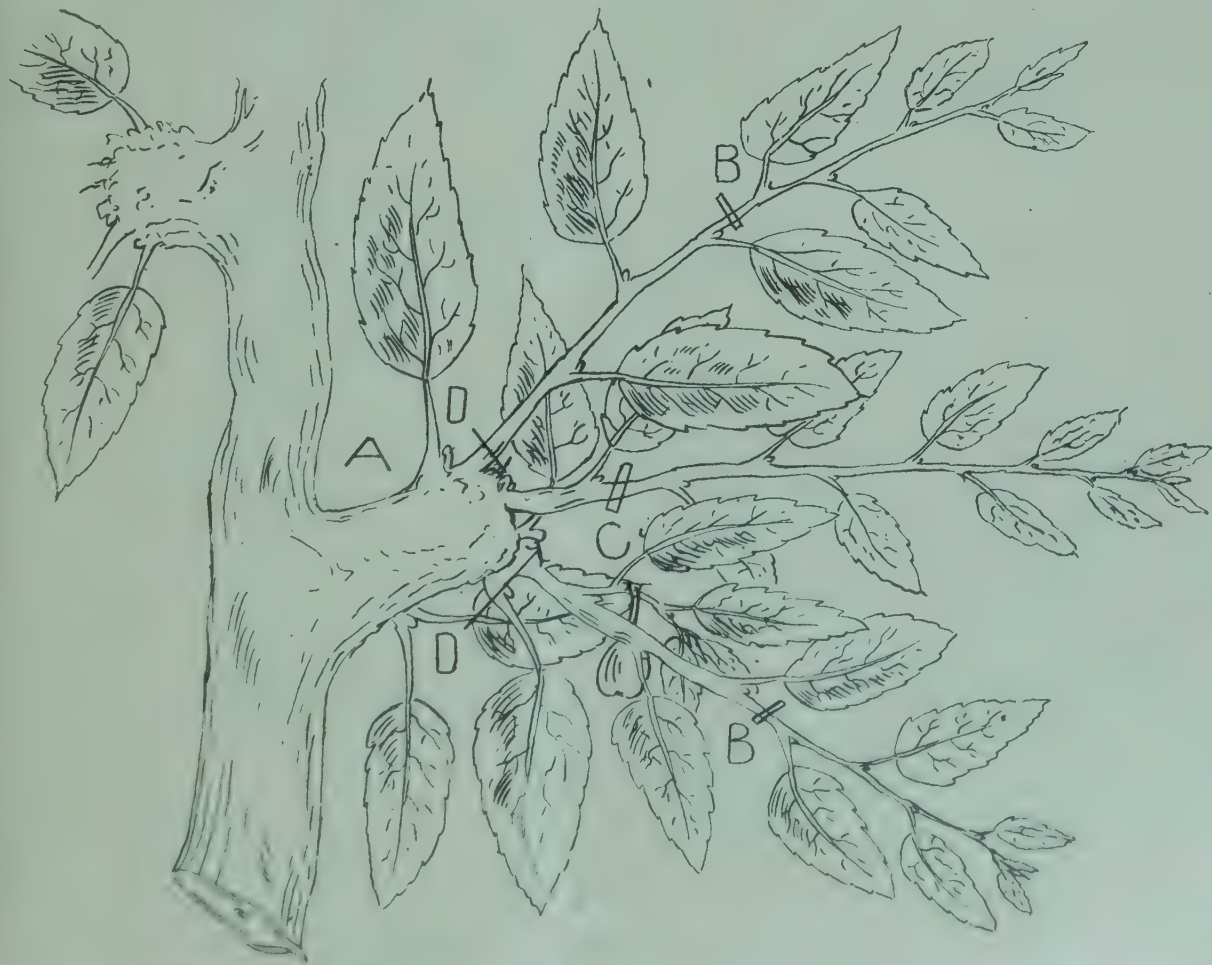
I—YOUNG FRUIT-BEARING SHOOTS THAT SHOULD BE PRUNED NOW.

The Illustrations Explained.—The principle of summer pruning is the same whether applied to young extended branches or to those growing on old spurs. I will refer to the former first. A shows a young branch with side shoots. During the

latter part of July and the early days of August the side shoots (B B B) must be cut back as denoted by the cross lines on each one. Three or four main leaves and buds must be left on the basal portion of the branch. In a very short time strong trees will produce lateral shoots, as shown by the dotted lines, C C C. When these small laterals are about one inch long they must be pinched out, as shown at D D D. The basal buds, denoted by E, will not burst into growth, but they will become very plump, and this is just what the cultivator wants. Probably a few sublaterals will grow again at D D D; if so, they must be pinched out when large enough to handle. In winter the shortened shoot is pruned to the basal buds on it. The leading branch (F) must not be shortened.

The second illustration shows how to deal with the young shoots growing on an old spur. A, spur and thick branch; B B, two strong young shoots, which must be cut back at the dark cross lines; C, a weaker shoot, which should be cut back almost to the spur itself to prevent overcrowding. Now, any buds left on the short stump of this shoot will grow again at once, and they must be pinched out; their growing does not matter, as the buds on the old spur, denoted by the arrows D D, will swell up well and produce flowers and fruits next year. Beginners should attend to the summer pruning of their fruit trees, particularly Apples and Pears, without much delay. By carrying out this work thoughtfully a good deal of hard pruning in the winter may be saved, with advantage to the trees. By the removal of surplus growths now, light and air will be admitted into the trees, with beneficent results. The winter pruning of the other shoots must be done in the usual way; then the old spurs will become very fruitful.

G. G.



2.—THE SUMMER PRUNING OF YOUNG SHOOTS GROWING ON AN OLD SPUR.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Border Chrysanthemums.—Keep the soil well aerated between the plants and well water them at the roots. During showery weather give a dusting of soot to the foliage and the surface soil, and a little artificial fertiliser hoed into the surface will prove helpful. Staking and tying must be proceeded with, and if the points of the growths become infested with aphids, either dust the affected parts with Tobacco powder or syringe with an insecticide. A damping of the foliage on warm, dry evenings will greatly assist growth.

Anchusas.—The varieties of this hardy herbaceous plant have been creating a brilliant display. It is one of the finest plants for the herbaceous borders and seems to stand drought, a most important point, especially in gardens where the soil is light and porous. Young plants that were raised from cuttings and are well established may be planted out, and will make fine plants for flowering next season.

The Kitchen Garden.

Spring Cabbage.—Between this date and the end of the month make a first sowing of good varieties for spring use. Select a border or piece of ground that has had no manure recently applied, and prepare a fine tilth. Sow the seed thinly and evenly broadcast and rake in. Stretch a net over the seed-bed, or probably birds will be a nuisance. If the prevailing weather is dry, water with a rosed can in the evening.

Coleworts.—Make a sowing for late autumn and early winter supplies in the open ground as advised for the above, bearing in mind not to let it follow any of the Brassica family.

Carrots.—Keep the main crop of Carrots of the Intermediate kinds intended for lifting for winter supplies well hoed. If the crop appears too thick, the young roots, if carefully pulled, will be useful for culinary purposes. During spells of drought, water should be liberally given if possible, and the crop mulched. Make another sowing of a quick-maturing variety for use later on.

Parsley.—Make a small sowing in the open ground in drills for providing plants for winter use.

Vegetable Marrows.—Keep the plants well supplied with water, and a good soaking at intervals with liquid manure-water to plants that are growing and fruiting freely will be of great advantage. The growths should be regulated and stopped, and the fruits as soon as large enough should be cut, as if the stalks are placed in shallow water they will keep young and fresh for a considerable length of time.

Plants Under Glass.

Malmaison Carnations.—The time has now arrived for propagating these old-time favourite flowers, which is carried out by layering. The best method is to devote a light or two of a cold frame, containing some fairly suitable soil of a sandy nature, for the purpose. Knock the old plants out of their pots, take out a little trench in which to lay the old balls of soil, and spread out the growths evenly for layering, when with a little careful manipulation the whole surface of the frame can be covered with growths. Use a sharp knife, and cut through a joint on the under side and towards the top of the growth. Just cover the growth where the incision is made with some of the fine soil and peg down. Keep close and shaded for a week or so, and damp over with the syringe; then gradually increase the amount of ventilation until the lights may be removed entirely.

Tuberous Begonias.—These are making a grand show in the houses just at present. Remove faded flowers to keep the plants neat in appearance, and support the flowers with neat sticks. See that the plants do not suffer for the want of water, and give them assistance once or twice a week with liquid manure-water.

Fruits Under Glass.

Peaches and Nectarines.—To retard their ripening, if it is convenient to do so, the trees may be shaded by whitewashing the glass or placing mats or other material over them during the day-time, though it can scarcely be expected that the flavour will be as good.

Strawberries.—When the newly-layered plants have rooted through to the sides of the pots, they should be severed from the parent plants and allowed to remain for a few days on the beds, when they can be removed to the nearest open site to where they will be potted. This should be carried out before the young plants become pot-bound. Use clean, well-drained 6-inch pots. Put a layer of rough turfy material over the crocks. Use a compost consisting mainly of fibrous loam, with the addition of one-third flaky leaf-mould or thereabouts, according to the nature of the loam, with a sprinkling of soot and wood-ashes and a liberal dash of silver or road sand. Make sure before potting that the ball of soil is well moistened through. Pot firmly, and leave quite an inch margin for watering. Give a good soaking in and stand on a firm bottom, as it is absolutely necessary to keep the plants free from worms.

The Hardy Fruit Garden.

Strawberries.—If it is intended to make new plantations—and it is advisable in gardens of fair dimensions to lay one down each year—a supply of plants should be layered into small pots as recommended for forcing, and, as soon as the ground is ready, the plants can be put out and will become well established before winter. It is a capital practice to plant out in threes triangularly, allowing plenty of space between the clumps and rows.

Summer Pruning.—If not done too early, it is an excellent plan to shorten back the current season's growth on wall fruits, such as Apples and Pears, to within five or six buds of the base, as not only does this make the trees more attractive, but does much to lessen aphids, renders the trees less susceptible to further attacks of blight, and exposes the fruits to the sun and air, as well as concentrating more energy into next year's fruit-buds. If done too early, however, it encourages lateral growth, which must, of course, have a weakening effect.

Watering.—Every available opportunity should be secured now to apply water and stimulants to swelling crops of fruit. Even where these are minus, the trees will greatly benefit, and should not be neglected. E. BECKETT, V.M.H.

Aldenharn House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Roses.—The season is now on, and much labour will be necessary in removing decaying flowers, which, if time permits, should be done systematically daily.

Delphiniums.—As the flowers give place to seed-vessels on the spikes, remove these at once, which will be a means to keep the foliage of the plants green and slightly for a long time; seeding, on the other hand, soon makes it rusty and an eyesore.

Pæonies.—As these go out of flower, very large plants, which are apt to throw few blooms, may be lifted, the roots soaked in water as a means of freeing them from soil, the plants thereafter divided and immediately replanted, and the stems and foliage supported on stakes. Apply water till the plants become established.

Carnations.—Proceed with layering shoots of border varieties, selecting the best for the purpose. It is quite a usual thing to find the workman, when fresh material is used for rooting into, place it not where the roots will be produced, but above the part into which the tongue of the layer is pegged. Some varieties are very apt to break away from the main stem when putting them down. This is easily prevented by twisting round the shoot to be layered, when, unless the operator is exceedingly clumsy, there will be none thus treated break off.

The Grass.—Now that the flower garden is again becoming bright with flowers, extra care should be taken that grass along the sides of walls, at the base of pedestals and beneath specimen shrubs is not allowed to stand untrimmed and longer than the grass on the lawns. Walk and border edgings are equally unsightly, and should never be allowed to grow much, but be clipped at short intervals.

The Shrubbery.

Prunings.—Common Laurels are usually very ragged and unkempt at this time of year, and if time permits or the weather is unsuitable for other operations, they may have the stronger shoots

cut back, leaving all the short ones, so that no appearance of their having been pruned may be evidenced. Nothing excels a knife for this purpose, though there are many ingenious instruments to be had by those who dislike an ordinary knife.

Weigelas.—Now that these have done flowering, the shoots may be shortened to allow the growths for next year to grow freely, and be well exposed so as to ripen thoroughly. The many beautiful species and varieties of Weigela seem to be hardly known, yet there is nearly every shade of colour from cream to darkest crimson with white, and with foliage variegated in white and yellow.

Clematises.—The late-flowering varieties will need constant attention to secure the fast-growing shoots and to keep them from getting irretrievably entangled. The pretty little *C. Flammula* is best trained so that its shoots droop, and these will merely need to be occasionally directed so that they do not grow into bunches.

The Hardy Fruit Garden.

Red Currants.—The shoots of these may be cut back previous to netting them.

Raspberries.—Any superfluous growths should be removed previous to putting on nets, and very strong shoots at the same time slung to the wires or other supports to keep them from sagging.

Apples.—Though as a crop Apples are light, there are always varieties which set more fruits than is good for the trees to mature. The thinning of such may now be proceeded with, leaving soft, early varieties, such as *Early Julian*, *Lord Grosvenor* and *Codlins* generally, till the fruits are large enough for culinary purposes, when thinning may be proceeded with by degrees.

Loganberries.—If trained on rough trellises, lay in as many shoots of the current year as will replace those in bearing. It is not always the most robust shoots of this fruit that give the largest crop, therefore extra strong ones may be cut out and those of medium strength only retained. If trained to stakes the shoots must be slung loosely to them in the meantime, and side growths from the fruiting canes shortened considerably.

The Vegetable Garden.

Cabbage.—This is the most suitable time for sowing for the early spring and main early summer crop. It is preferable to sow the seeds broadcast and thin rather than in drills. Those who are inexperienced should coat the seeds with dry whitening, which enables one to gauge exactly the closeness of the seeds.

Broccoli.—These and other winter crops of a like nature will be benefited by having some earth drawn to the plants on each side and, if the soil is at all hard, somewhat loosened on the surface. Cauliflowers may require water at the root and a surface-dressing of a stimulating manure, but not Broccoli nor Brussels Sprouts, at least in the meantime.

Spinach.—A larger sowing than usual may be sown now or shortly. If the seeds are sufficiently thin in the rows, the plants will stand a long time once the cooler nights begin in August. If sown after Potatoes, the surface of the soil will merely need to be well broken up with a fork and the seeds sown forthwith. Spinach does best in not too firm a soil.

The Plant-Houses.

Auriculas.—This is a suitable time to repot all kinds. Old plants should have the soil shaken from the roots, and these be dipped in an insecticide should the white root aphids be present, the decayed part of the rootstock removed and the plants repotted in pots of the same size. Young plants in small pots need only be shifted into others of a larger size.

Humeas.—All seedlings as soon as they are large enough to handle should be transferred from the seed receptacles to cutting-boxes or 6-inch pots. They need not be more than 1 inch apart. The young plants progress much better when transplanted as thus advised than if left in the seed-pots till they become larger.

Freesias.—The earliest batch may now or soon be potted. They succeed very well in 5-inch pots, twenty or so in each, and if too contracted for all the corms to be placed on a level, a portion may be placed slightly deeper. Stand the furnished pots in a cold frame, but allow them to be exposed to all kinds of weather in the meantime.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Polypodium mandaianum.—In brief, this lovely and handsome Fern may be described as a glorified *P. aureum*, having fronds 4 feet to 6 feet in length, proportionately broad, and of a deep glaucous green, whose gracefully-arching, deeply-laciniated pinnæ are almost suggestive of a plumose character. This magnificent novelty was in splendid form at the recent International Exhibition, when, as now, it was exhibited by Mr. W. A. Manda, South Orange, New York, U.S.A. It is a noble Fern and a great acquisition.

Lilium warleyense.—A gloriously beautiful and new Lily, with rich scarlet-coloured flowers, from China. These are in great numbers on the plant, and if quite representative of the new-comer, every hardy plant gardener will require it. The leaves are narrow, linear and long, not unlike those of *L. myriophyllum*, the drooping petioles suggesting those of *L. suchuenense*. A remarkable plant of great merit. From Miss Willmott, Warley Place, Essex.

Lastrea patens Mayii.—A hybrid raised between *L. patens* and *L. lepida*, having the pale green-coloured fronds of the first. The fronds are grooved, much dissected, and of considerable length, making up a highly ornamental plant. From Messrs. H. B. May and Sons, Edmonton.

Miltonia hyeana Le Conquerant.—Pale rose sepals and petals, and an almost white lip with a crimson patch in the centre. Shown by M. Jules Hye de Crom.

Cattleya Artemis.—This is a fine hybrid derived from the intercrossing of *C. Iris* and *C. gaskelliana*. The sepals and petals are a light mauve, which are slightly reflexed, but the open and broad lip is a purplish magenta, with a large band of yellow in the throat. Exhibited by Lieutenant-Colonel Sir G. Holford.

Cattleya dupreana Schröder's variety.—A superb *Cattleya* having well-formed flowers, the sepals and petals being a pleasing shade of rose, while the gorgeous lip is purplish crimson. From Baron Bruno Schröder, Egham.

AWARDS OF MERIT.

Carnation Jean Douglas.—A superb scarlet of dazzling colour, whose shapely and large petals will doubtless render it a splendid exhibition variety. The flowers are supported on stout, erect stems.

Carnation John Ridd.—Yellow-ground fancy, suffused and marked with rosy red. It is regarded as one of the best fancy sorts in existence. Both came from Mr. James Douglas, Great Bookham, Surrey.

Clematis Lady Betty Balfour.—A very showy variety, whose flowers are of purplish hue. From Messrs. George Jackman and Sons, Woking.

Astilbe Avalanche.—The fine pyramids of blossom are nearly pure white; under stress of forcing they would doubtless be quite so. Shown by M. G. van Waveren, Holland.

Nephrolepis exaltata Rochfordii.—An exceptionally dwarf variety of this variable species, with plumose fronds of an almost moss-like density. In plumose varieties it would appear to represent about the last word. Exhibited by Messrs. T. Rochford and Sons, Limited, Broxbourne, Herts.

Begonia Mrs. Robert Morton.—A splendid variety of the tuberous-rooted section, of a rich,

clear golden yellow colour. The flowers are of great size and perfect form.

Begonia Florence Nightingale.—Another superb novelty, with flowers of the purest white. Both were exhibited by Messrs. Blackmore and Langdon, Bath.

Rose Ethel.—A rambler or climbing variety, with a great wealth of single, clear pink-coloured flowers. From Mr. Charles Turner, Royal Nurseries, Slough.

Rose Mrs. Charles S. Hunting.—A Hybrid Tea variety, in which pink and cream colour are in delightful harmony. Exhibited by Messrs. Hugh Dickson, Limited, Royal Nurseries, Belfast.

Brasso-Cattleya Marion.—The parentage of this pretty Orchid is unknown, but the flowers are of good shape. The colour is a light heliotrope, the lip being slightly fringed and deep mauve, with a darker streak down the centre. Shown by Messrs. J. Veitch and Sons, Limited, Chelsea.

Cattleya thurgoodiana Apollo.—Sepals and petals magenta, and a rich purplish crimson lip, which has a blotch of yellow on either side similar to the well-known *Cattleya gigas*. From Messrs. Stuart Low and Co., Enfield.

Lælio-Cattleya rubens The Kaiser.—A pleasing form of this popular hybrid, being richer in colour than the type. Exhibited by E. H. Davidson, Esq., Twyford.

Odontoglossum percultum King George V.—The flowers are large, and have a whitish ground blotched and marked with bluish purple. From F. M. Ogilvie, Esq., The Shrubbery, Oxford.

The foregoing were shown before the Royal Horticultural Society at the Holland Park Show.

ANSWERS
TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

WOUNDED POPPIES (H. M.).—An insect, apparently a minute two-winged fly, has laid her eggs in the stem of the Poppy. You will find the larvæ which have hatched from them in the wounded parts. The life-history of this insect is unknown, and it does not appear to be common. Probably the enclosure of any specially-desired buds with muslin would save them. The attacked buds should be burned.

VIOLETS WITH HIDDEN FLOWERS (C. T.).—The ordinary flowers of the Sweet Violet very rarely produce seed. The seed is produced in small flowers, like those you send, and known as cleistogamous flowers, from the fact that they never open. They are somewhat dependent upon the conditions around the plant for their formation, and possibly, if the Violet were transplanted to other quarters, it would produce flowers, though it may possibly be that the plant in question has lost the faculty of ordinary flower production altogether. The cleistogamous flowers are borne after the ordinary ones are all done.

INJURY TO PHLOXES (W. A.).—The Phloxes are badly attacked by the stem eelworm. The rolling of the leaves and the malformation of the stem have been brought about by these pests, and they are likely, unfortunately, to be carried on to other years. The tissues are filled with eggs,

and so all diseased parts should be removed as soon as possible and burned, not consigned to the rubbish-heap. Propagation should only be done from healthy plants, and as the pest exists in the soil and gains entrance into the plants from the soil, the latter should have a dressing of sulphate of potash at the rate of at least 1lb. to each 20 square yards, and double that quantity may be used.

THE GREENHOUSE.

PITCHER PLANTS (Latona).—Whether you take the plants out altogether from their Teak baskets will depend upon the condition the roots are in. If they are in good condition it would perhaps be as well to remove as much of the old soil as possible without unduly disturbing the roots, and replace it by some fresh compost made up of fibrous peat, sphagnum moss, silver sand and nodules of charcoal. Whether the plants need re-basketing can only be known by personal inspection, but if in your opinion this had better be done, the same compost as above recommended will be suitable. If you have a propagating-case in the stove with bottom-heat, the tops of the plants that are cut off may be put in as cuttings.

GLOXINIAS (X. Y.).—There were a few thrips on the leaves sent, but the major portion of the injury seemed to be caused by that destructive little mite usually referred to as the Begonia mite, from its having been first noticed on these plants. Its ravages, however, are greatly on the increase, for we have had numerous examples of injury done by it on different plants during the present season. Probably the hot, dry summer of last year had something to do with this, for heat and drought are very favourable to the increase of this pest. From its exceedingly minute character, this mite often does a deal of damage before its presence is suspected. Vaporising with the XL All Vaporiser at intervals of a few days, or dipping the plants in some nicotine solution, will effect a cure; but in your case the mischief is already done. While too dry an atmosphere is injurious to Gloxinias, we do not recommend daily syringing, though in very dry weather it is beneficial. Rather than too much syringing it is better to maintain a certain amount of humidity by damping the stages on which the plants are stood.

FRUIT GARDEN.

RASPBERRIES ON ARCHES (J. B.).—On rich, deep soil some of the strong-growing varieties of Raspberries, such as Superlative and Norwich Wonder, will give a cane-growth of from 6 feet to 7 feet in a season; but grown on ordinary garden land they cannot be depended on to grow high enough to cover arches, like the Loganberry vine. Why not arches of Blackberries? These make a cane-growth of from 10 feet to 15 feet in ordinary seasons on good land. They seldom fail to give a good crop of useful, indeed, delicious fruit when quite ripe every autumn. The Parsley-leaved variety is the best.

SUMMER PRUNING FRUIT TREES (J. I. O.).—This consists in pinching all the shoots the tree makes (excepting the main leading shoots) at the fifth leaf (understand, every shoot, including all side shoots). From the shoots so stopped other young shoots will issue in due course. All these must also be pinched back, at the third leaf this time, and every subsequent growth these shoots may make in the course of the season must be pinched back at the third shoot in the same way; some of the shoots will probably have to be stopped three times. See "Gardening for Beginners" in this issue.

MISCELLANEOUS.

AUSTRALIAN PEPPER (T. B. F.).—We have not been able to find out what is meant by Australian pepper. The native Pepper Plant of Australia is *Piper Novæ Hollandiæ*, but whether Australian pepper is the product of that plant we are not able to say, neither do we know whether one pepper would be any more effective than another for the purpose for which you require it. It is probable that Cayenne pepper sprinkled about would drive the dogs away. By calling at your nearest drug store you could probably find out whether Australian pepper is still in commerce, or the chemist in charge might be able to recommend something suitable for the purpose. In the meantime a little wholesome correction to the dogs might have the desired effect.

NAMES OF PLANTS.—*Solent.*—Poison Ivy (*Rhus Toxicodendron*). It is a dangerous plant to grow, for if handled by some people it causes a form of blood-poisoning. —*Lieutenant-Colonel Prestbury.*—*Genista tinctoria.*—*Lewis.*—*Sedum Sieboldii*. The blue-flowered plant is a form of *Campanula garganica*. —*A. S.*—1, *Lilium giganteum*—you are to be congratulated upon flowering this beautiful Lily; 2, *Eucomis punctata*, a South African liliaceous plant. —*C. R.*—1, *Geranium pratense*; 2, *Veronica longifolia alba*; 3, *Thalictrum glaucum*; 4, *Centranthus ruber* (Red Valerian); 5, *Nepeta Mussinii*; 6, *Anaphalis margaritacea*. —*Payd.*—1, *Taxus baccata pendula*; 2, *Helichrysum* (*Gnaphalium*) *lanatum*; 3, too small to name; 4, a Labiate, not sufficient material to name; 5, *Veronica incisa*; 6, *Epilobium nummularifolium*. —*W. C. S.*—*Malmaison* *Carnation Princess of Wales.* —*S. C. R.*—*Nepeta Mussinii.*—*Orchid.*—1, *Orchis maculata*; 2, *Thalictrum aquilegifolium*; 3, *Glyceria aquatica variegata*—it grows about three feet or more. —*M. G.*—*Coleuses*: 1, *Edith Sentance*; 2, *Diana*; 3, *Fantasy*; 4, *Gem*; the *Fuchsia* is *Gertrude Pearson*, and the Fern *Nephrolepis exaltata.* —*Lewis.*—Viscountess Folkestone. —*Many Years' Reader.*—1, Mrs. E. Mawley; 2, Warrior or General Schablikine. —*John Hopper.*—Jules Margottin. —*An Amateur.*—We believe the Rose to be the variety *Mme. Audot*, one of the very old tribe of *Rosa alba*.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY'S
SUMMER SHOW.

(Continued from last week.)

SWEET PEAS.

Messrs. Carter and Co., Raynes Park, erected a beautiful triumphal arch of Sweet Peas, and, with a raised platform as a base, this subject was seen to advantage. The quality of the flowers was very good indeed, and the grouping was exceedingly pretty. Among some of the better things were Masterpiece, Mrs. Routzahn, Mrs. C. W. Breadmore, Queen of Norway, Marie Corelli, Elsie Herbert, T. Stevenson, Prince George, Mrs. Cuthbertson, May Campbell and Elfrida Pearson. This was a fine effort.

A splendid table group of Sweet Peas was shown by Mr. W. E. Alsen, Denmead, Hants. Good colour and capital quality were conspicuous, although the bunches might with advantage have been more lightly arranged. Mrs. H. Sykes, Melba, Stirling Stent, Mrs. H. Dickson, Evelyn Hemus, A. A. Fabus and Winsome were the better sorts.

A dainty lot of Sweet Peas was staged by Messrs. H. Cannell and Sons, Swanley. This group included most of the newer and better varieties, and the flowers were attractively set up.

Messrs. Sutton and Sons, Reading, made a very wonderful exhibit of Sweet Peas, representing about one hundred and twenty bunches, set up in most attractive fashion. About seventy-two feet frontage was occupied by this very handsome exhibit, and all that was worth growing in Sweet Peas was seen here. A background of velvet, with arches

Mary (blue), Breadmore's Frilled Cream (cream), Audrey Crier and Elsie Herbert, all in excellent form and condition.

A number of vases of the better Sweet Peas were set up in the group of hardy flowers arranged by Messrs. Kelway, Langport. The flowers were large and well grown, and the varieties up-to-date. Miriam Beaver was very fine.

A particularly charming group of Sweet Peas came from Messrs. E. W. King and Co., Coggeshall, Essex. The blossoms were most attractively displayed, and the flowers were fresh, clean and highly coloured. Anglian Lavender, Elsie Herbert, Mrs. W. King, Gladys Burt, Nubian, Anglian Pink, Nettie Jenkins, Constance Oliver and Anglian Fairy were beautifully shown.

A pretty collection of Sweet Peas was staged by Messrs. S. Bide and Sons, Farnham, Surrey. Baskets, artistic vases and a variety of receptacles were utilised to display these dainty flowers to advantage. Bertha Massey, Queen of Norway, Florence Nightingale, Edna Harland and R. F. Felton were among the good things in this group.

A small group of Sweet Peas was shown by Mr. W. J. Godfrey, Exmouth. The flowers were fresh and clean, and up-to-date varieties were shown. May Campbell, Mrs. Townsend, Masterpiece, Elfrida Pearson and Juliet were the better varieties.

A very large collection of high-quality flowers was shown by Sir Randolph L. Baker, Bart, M.P., Ranston, Blandford. Remarkably fine were the blooms, and they were shown in wonderful variety. They might very easily have been more effectively set up; there was too much blank space at the back of the group. Mrs. Cuthbertson, Eric Harvey, Dorothy, Princess Victoria, Doris Usher, Audrey Crier, Lavender George Herbert, T. Stevenson and Mrs. W. J.

Enchantress, White Perfection, Scarlet Glow (grand colour), Mrs. T. W. Lawson, Enchantress, Beacon, Governor Roosevelt, Mrs. W. C. Ward, Melody, Cardinal and a very promising fancy shown under the name of Seedling No. 1.

Messrs. Stuart Low and Co., Enfield, set up a fine exhibit of Carnations in the manner peculiar to this firm. With appropriate foliage the effect was good. Of the Malmaisons, Old Blush, Irene, Lady Mary Hope, Lady Coventry, Calypso, Sault, Princess of Wales and Martin R. Smith were first-rate. There were some fine vases of the Perpetual-flowering Baroness de Brien (a beautiful blush pink sort).

Messrs. W. Wells and Co., Limited, Merstham, Surrey, showed Carnations in their group of miscellaneous plants. White House, Lady Algy, Dorothy Gordon, R. F. Felton and Scarlet Glow were seen in good form.

Mr. J. D. Webster, Chichester, had a small group of Carnations in pleasing variety. Lady Wolverton was noteworthy.

A pretty group, arranged on the ground, was set up by Messrs. John Peed and Son, West Norwood, S.E. The arrangement might have been vastly improved, but the flowers were fresh, clean and of good quality.

Carnations were nicely shown by Mr. H. Lakeman, Thornton Heath, Surrey. Miss Willmott, Thomas à Becket, Lieutenant Shackleton, Lady Hermione, Amy Robsart, Leslie and several well-known Perpetual-flowering kinds were in evidence.

A splendid bank of Malmaison Carnations was put up by Mr. W. M. Gott, Trenythorpe, Par Station, Cornwall. They were a fine lot, and included, among others, Princess of Wales, Madge Hodgson, Mrs. Trelawney, The Queen and Monk.

Carnations were also set up in another comprehensive group by Messrs. R. H. Bath, Limited, Wisbech. They were all border sorts, and were a beautiful series. Nene Beauty, Safrano, Unique, Gondolier and others were noteworthy. There were also a good number of Perpetual-flowering sorts.

Mr. Charles Blick, Hayes, Kent, had a pretty exhibit of very fine Carnations. They were set up with "grass" as an embellishment, and looked very pretty. Pater, Cyclops, San Remo, R. Morton, The Nizam, Salome, May Day and King George were all very fine.

A splendid table group of Carnations was set up by Mr. H. Burnett, Guernsey, representing Malmaison and Perpetual-flowering varieties. R. F. Felton, Mikado, Mrs. H. Burnett, Mrs. Tatton, Enchantress, Mandarin, Mrs. W. B. Clode, Duchess of Devonshire and Marmion were well shown.

Mr. C. Engelmann, Saffron Walden, Essex, also staged Carnations splendidly in a table group. Handsome blooms in vases and stands in variety were shown in beautiful condition, and this grower well maintained his reputation. Elektra, May Day, Rex, Carola, Lady Northcliffe, White Star and Sunstar were all good.

A very fine exhibit of Carnations was shown by Mr. James Douglas, Edenside, Great Bookham, Surrey. The varieties shown were the hardy border kinds, and they were distinctly good. Mrs. Penton, Greyhound, Mandalay, Miss Willmott, John Ridd, Mrs. R. Gordon, Lord Nelson, Mrs. Henwood and Mrs. Elliot Douglas were a few of the more lovely things sent by this well-known raiser and grower.

STOVE AND GREENHOUSE PLANTS.

From Mr. W. J. Godfrey, Exmouth, came a capital collection of well-grown show and fancy Pelargoniums, set up in attractive fashion. Lady Doreen Long, Bicton, Mrs. A. Wootton, Bystock H. S. Davy and King George V. were noteworthy. Sweet-scented Pelargoniums were also represented in a small group from the same firm.

British Ferns were represented in considerable variety by Messrs. H. B. May and Sons, Edmonton. These beautiful native Ferns were shown in the pink of condition, and could not have failed to please visitors. Of the better things, *Polystichum aculeatum gracillimum* Druryi (a lovely plant), *P. angulare divisilobum capitatum*, *Athyrium Filix-femina gemmatum* and *Scolopendrium vulgare crispum Robinsonii* were specially good sorts.

Ferns and Cacti made an interesting exhibit as shown by Mr. H. N. Ellison, 5 and 7, Bull Street, West Bromwich. This was a very representative group, and many species were in evidence. The plants were of much interest to the public.

Ivy-leaved Pelargonium Queen Mary was shown in a table group by Mr. H. Hemsley, Crawley, Sussex. The plants were freely-flowered, and were also in good health.

A pretty group of *Araucaria exaltata gracilis* was set up by Messrs. Carter, Raynes Park, S.W. The plants were well grown, being feathered with foliage down to the rim of the pots.

Gloxinias and Streptocarpi were well shown by Messrs. John Peed and Sons, West Norwood, S.E. These plants had fallen with the staging in the early morning, and had come through the ordeal very well.

Cut Zonal Pelargoniums were exhibited by Mr. Vincent Slade, Taunton, Somerset. Large and handsome bunches of popular sorts were shown.

A group of miscellaneous flowering plants was staged by Messrs. J. Veitch and Sons, Limited, Chelsea, and although the plants had suffered by the fall of the staging in the morning, they looked very well. Malmaison Carnations, Begonia Lucerne, Achimene Rose Queen, Cannas, Streptocarpus, Calceolaria Burbidgei and Solanum Wendlandii were a few of the better things in this exhibit.

Hardy Ferns were well shown by Mr. Amos Perry, Enfield. The plants were pleasingly disposed among boulders of rocks and were made to appear quite natural in their surroundings. Many fine specimens were in evidence, including *Polystichum angulare* Gow's Hybrid.



A GROUP OF ROSES SHOWN BY MESSRS. PAUL AND SON, CHESHUNT, HERTS, AT THE HOLLAND PARK SHOW.

of Smilax and Asparagus and columns of Sweet Pea blossoms, made a really grand effect. An immense array of vases, filled with high-quality flowers, made one of the best efforts of this great firm. The best kinds were Southcote Blue, Doris Usher, Helen Grosvenor, Mrs. A. Ireland, Sutton's Queen, Sutton's Mauve on Cream, Brilliant Scarlet, Sutton's Scarlet Crimson and Sutton's Rose Pink.

Quality and effect were represented in the marvellous display of high-class Sweet Peas by Messrs. Dobbie and Co., Edinburgh. This firm has achieved such distinction in the development of the Sweet Pea that we naturally look to them to do something more meritorious than other growers, and in this exhibit we were more than pleased. Pyramids, vases, &c., represented these flowers superbly, and each vase contained blooms of the very best. Special mention must be made of Mrs. Cuthbertson (clear rose pink standard, white wing flushed pale rose). Four or five blooms could be seen on each stem. Dobbie's Scarlet (scarlet, toned cerise), Brunette (rich, deep mahogany self), Lavender George Herbert (Dobbie's stock—plenty of fours, blush lavender) and Decorator (old rose and terracotta) were among many others that were superb.

Mr. J. D. Webster, Chichester, had a capital lot of Sweet Peas in charming variety. Juliet, Senator, Selected White Spencer, Mrs. C. W. Breadmore, Thomas Stevenson, Elsie Herbert, Helen Grosvenor, Masterpiece, Prince Olaf, Mrs. Heslington and Mrs. Charles Foster were a few of the better kinds in this good collection.

Mr. Charles W. Breadmore, Winchester, staged a magnificent group of Sweet Peas, exhibiting about one hundred and forty vases, including all the newest and best varieties in commerce. The flowers were set up most attractively, were well coloured and of good quality. Varieties deserving special mention were Aggie Elder (rosy cerise), Princess

Unwin were a few of the better things in this truly grand lot of flowers.

Mr. James Box, Lindfield, Sussex, had a grand mass of Sweet Peas, exhibiting the better and well-known sorts. We think this exhibit would have looked better had it been less crowded. Mrs. Gibbs Box, Money-maker, Arthur Unwin, Barbara, Countess Spencer, Audrey Crier and James Box were worthy of mention.

A large and comprehensive collection of Sweet Peas was shown by Messrs. John K. King and Sons, Coggeshall, Essex. All the good things were to be seen here, but the general effect was not so good as it might have been, owing to the crowded state of the vases. America Spencer, Doris Burt, Rainbow Spencer, Marie Corelli, Mrs. A. Ireland, Thomas Stevenson, Melba and Prince Edward of Wales were very charming.

A useful collection of Sweet Peas was put up by Mr. Marshall Y. Green, Eynsford, Kent. Novelties and well-known sorts of sterling merit were to be seen in excellent form and condition, high quality characterising all the flowers. Mrs. C. W. Breadmore, Orion, Edna Unwin, Barbara, Nellie Maslin and Marchioness of Tweeddale were exceptionally good.

Mr. Robert Sydenham, West Birmingham, put up an exhibit of an interesting character, staging handsome bunches of the more popular varieties. Lilian, Mrs. T. W. Warren, Orion, Maud Holmes, Lady Evelyn Eyre and Elsie Herbert were all good and well grown.

CARNATIONS.

A wonderfully fresh and bright exhibit of Carnations was staged by Mr. G. Lange, Hampton. Stately vases were artistically arranged with very clean and beautiful blossoms. The more noteworthy sorts were Rose Pink

A grand table group of *Salvia* *Pride of Zurich* was a beautiful patch of colour. The plants were growing in 5-inch pots, and were freely flowered. An edging of *Pterises* and other foliage plants added considerably to the effectiveness of the display.

A small group of Zonal *Pelargoniums* was set up by Mr. Philip Ladds, Swanley, Kent, representing good market varieties.

A bank of *Begonias* shown by Messrs. Ware was much admired. Every colour known in these flowers seemed to be represented, and the quality of the large and handsome blooms was really magnificent. *Duchess of Connaught*, *Lady Cromer*, *Hon. Mrs. Maurice Glyn*, *Captain Lambton*, *Laura Ashdown* and *Margaret Gwillim* were a few of the good things to be seen here.

ORCHIDS.

Messrs. Sander and Sons, St. Albans, were represented by a choice selection of new Orchids, including a grand and profusely flowered plant of *Miltonia vexillaria lambeaniana*.

HARDY PLANTS.

Messrs. T. S. Ware, Limited, Feltham, had a notable display of hardy plants in the cut state, with which was associated an extensive rock garden exhibit. The herbaceous subjects were very generously treated, and embraced many of the most valuable and effective of seasonal flowers. The excellence of the *Begonias* staged by this firm enabled them to receive the high award of a silver cup.

Messrs. J. Cheal and Sons, Crawley, had a very nice rock garden exhibit suitably and artistically planted with shrubs and alpine. A large number of beautiful plants were employed.

Messrs. H. J. Jones, Limited, Lewisham, S.E., had the most glorious exhibit of herbaceous *Phloxes* in pots ever seen at an exhibition, a remarkable bank of colour that represented these showy subjects to perfection. The collection was arranged on the ground on a rather gently inclining plane dipping to the opening of the tent. It was a really sumptuous bank of colour, in which the finest novelties of the day and the best older sorts were seen side by side. We have never, indeed, seen such an imposing array or such cultural excellence displayed with these things in pots in the early summer-time. A few of the more conspicuous were *Iris* (deepest violet), *George A. Strohlein*, *Dr. Charcott* (a rich and good Parma Violet blue tone), *General van Hentz* (brilliant salmon scarlet), *Frau Ant. Buchner* and *Mrs. Jenkins* (white). The plants, arranged in a long bed some six feet or more wide, were the admiration of all.

Mr. H. Hemsley, Crawley, arranged a pretty rockwork exhibit freely and well planted with alpine and other suitable things.

Messrs. Blackmore and Langdon, Bath, had a superb lot of *Delphiniums* in many fine varieties, *Novelty*, *Statuaire Rude* and *Rev. E. Lascelles* being noted among many handsome sorts. The last-named was in particularly good form, and very striking in its rich deep violet blue and white.

The Misses Hopkins, Shepperton-on-Thames, had a pleasing rock bank prettily and freely planted with alpine of many kinds.

Messrs. G. Gibson and Co., Leeming Bar, Bedale, had a fine and showy lot of hardy perennials in the cut state, an imposing bank of colour which embraced not a few of the more seasonable flowers, effectively set up.

Messrs. David Russell and Son, Brentwood, Essex, contributed a showy group, in which *Liliums*, *Monardas*, *Pyrethrums* and other herbaceous subjects were noted. In the open the firm had a small water garden, with *Lilies* and other suitable subjects.

Messrs. Thompson and Charman, Bushey, Herts, had a rather extensive arrangement of hardy things, in which such *Liliums* as *myriophyllum* and *Hansonii* were seen. *Pentstemons* and *Early Gladioli* were also notable by reason of their quality and numbers.

In an arrangement of alpine and herbaceous plants from Messrs. Bees, Limited, Liverpool, the pretty *Adenophora Potaninii*, *Lathyrus Smithii*, *Oxalis enneaphylla*, *Scabiosa caucasica alba* and *Potentilla nitida alba* were at once noted. *Campanula glomerata acaulis* (taller than usual) was also noted among many things.

Messrs. Pulham and Son, Elsenham, Essex, arranged a small rock garden in conjunction with herbaceous subjects. *Calamintha grandiflora* and *Thymus Serpyllum coccineus* were items of interest among flowering plants.

Messrs. Rich and Co., Bath, contributed showy herbaceous subjects, arranging a rather bold central group of *Verbascum wiedmannianum*, and in the background a good array of *Phloxes*. *Violas* in variety were also of merit.

Mr. R. C. Notcutt, Woodbridge, displayed, in conjunction with *Roses*, a showy lot of seasonable herbaceous things, *Verbascons* among the latter being noted.

The Guildford Hardy Plant Nursery, Guildford, Surrey, had an interesting and rather comprehensive exhibit, in which herbaceous subjects were associated with alpine and a small rock garden. *Spiraea paniculata rosea*, *Cytisus nigricans*, *Scabiosa ochroleuca* (one of the showiest of its tribe), with *Delphiniums* and *Pentstemons*, were well displayed. A fine mass of *Nierembergia rivularis*, with white flowers, was also noted.

Messrs. William Wells and Co., Limited, Merstham, had a mixed group of herbaceous plants and alpine, with *Carnations* of the *Perpetual* class. The *Phloxes* and *Delphiniums* were, however, the chief features, though *Scabiosa caucasica* and *Hedysarum coronarium* also claimed attention.

FRUIT.

Messrs. Whitelegg and Page, Chislehurst, showed the *Newberry*, a cross between the *Loganberry* and *Raspberry Superlative*. The canes grow to a height of 10 feet,

bearing 200 fruits. The flavour resembles nothing except the *Raspberry*, and the fruit has no core. It is a good plant for arches or pergolas.

Mr. Elie Mahy showed three plants of a new *Tomato*, *Hillside Comet*.

VEGETABLES.

The Halliford French Garden, Shepperton, staged a good exhibit of vegetables, including *Cucumbers* *Covent Garden Favourite*, *Radishes* *French Breakfast* (white and red), *Carrots*, *Onions* and *French Beans*. The exhibit would have been more interesting had all the varieties been labelled. Fine specimens of *Melon Cantaloup Parisien*, grown in frames, were not the least interesting exhibit in a clean, well-staged collection.

The Rev. L. C. Chalmers-Hunt, Willian Rectory, Hitchin, staged a collection of vegetables, including *Potato Sir John Llewelyn*, *Gladstone* and *Gradus Peas*, *Early Erfurt Cauliflower* and *Canadian Wonder Beans*.

Mr. J. MacDonald, Harpenden, showed specimens of turf grown in sterilised and ordinary soil. Mr. MacDonald claims to be able to lay a cricket pitch in three widths of turf under this new system of growing. Certainly the turf on the miniature croquet lawn exhibited was peculiarly attractive. The festoons of grass were quite interesting and unusual.

AWARDS.

The following awards are supplementary to those given in the official list of awards published in our last issue: *Silver-gilt Flora Medal*.—To Messrs. Stuart Low and Co. for *Roses*.

Silver Banksian Medals.—To the Countess of Ilchester, Abbotsbury, Dorset (gardener, Mr. Kempshall), for cut shrubs; Messrs. Jarman and Co., Chard, for *Carnations*, *Sweet Peas* and *Pelargoniums*; and the Guildford Hardy Plant Nursery for alpine and herbaceous plants.

ROYAL AGRICULTURAL SOCIETY'S SHOW AT DONCASTER.

HORTICULTURAL SECTION.

THE sympathy of all people who are interested in agricultural or horticultural pursuits will go out to the executive of the Royal Agricultural Society this year, for, in addition to the loss sustained by the enforced withdrawal of all cattle, sheep and pigs on account of outbreaks of foot-and-mouth disease, the opening day was marked by a continuous downpour of rain, which, in addition to having a harmful effect on the attendance, turned much of the ground into a quagmire.

The opening of the horticultural section on the second day, however, was attended by happier results, for, although cloudy, the weather kept fine, and the flower tents were visited by large numbers of people. As has come to be expected at the Royal Show, the horticultural section was very well done, and the majority of the exhibits were models of healthy, well-grown and well-finished plants.

HARDY PLANTS.

Hardy flowers perhaps predominated, and the various classes were well filled.

In Class 5, for a display of herbaceous flowers, *Bambos*, *Liliums* and foliage plants, there were six entries. In this class Messrs. James Backhouse and Sons, The Nurseries, York, were placed first with a charmingly-arranged group of shrubs, alpine plants and border flowers. The majority of the plants were arranged on rockwork, with rocky pools filled with *Water Lilies* in the foreground. Scarcely less effective was another group, with which Messrs. W. Artindale and Son, Nether Green Nursery, Sheffield, won the second prize of £15. The chief features of the group were the masses of *Gladioli*, *Iceland Poppies*, *Lilies*, *Viola cornuta*, &c.

For a collection of cut hardy perennials Messrs. Harkness and Sons, nurserymen, Bedale, were placed first, and Messrs. W. Artindale and Sons second. Both groups were of high-class character, and contained a good selection of the showier border flowers.

STOVE AND GREENHOUSE PLANTS.

These created a great deal of interest, a number of decorative groups being staged.

Messrs. James Cypher and Sons, Queen's Road Nurseries, Cheltenham, occupied the most prominent position, and this firm obtained first prize for a group of miscellaneous plants in and out of bloom occupying 350 square feet; first for a collection of *Orchids*, arranged for effect on a space of 100 square feet; and first for a collection of stove and greenhouse plants arranged in a space 20 feet by 10 feet. In the last-mentioned group were fine examples of *Allamanda nobilis*, *Clerodendron fallax*, *Erica ventricosa* variety *bothwelliana*, *Statice profusa* and *Ixora Pilgrimii*. Among *Orchids*, *Cattleyas*, *Odontoglossums*, *Oncidiums* and *Epidendrum prismatocarpum* were most noticeable.

For a group of tuberous *Begonias* Messrs. Blackmore and Langdon easily obtained the first prize of £5 and a gold medal. The majority of the plants had double flowers, of enormous size and substance; in many cases individual blooms measured from 6 inches to 7 inches across. In a group where every plant was good it was difficult to select any as being superior to others. The following varieties, however, appealed specially to us: *Rose Superbe*, Mr. Robert Morton, Mrs. C. Russell, *Duchess of Cornwall*, *Florence Nightingale*, *William Marshall*, *Violet Langdon* and *Irene Tamblin*; while *Lena*, *Golden Shower* and *Gladys* showed to excellent advantage in hanging baskets. A good group of *Begonias* in the same class was made by Mr. B. H. Brooksbank, Sandrock, Tickhill, Rotherham.

The only entry in Class 7, for a collection of cut sprays of *Carnations*, was made by Mr. C. Engelmann, nurseryman, Saffron Walden, Essex, and he was awarded the

premier prize. Among other varieties, *Beacon*, *Elektra*, *Mikado*, *Triumph*, *Winsor*, *Sunstar*, *Harlequin* and *Salome* were conspicuous.

Carnations were, however, well represented in the non-competitive classes, and quite one of the most attractive groups in the show was that put up by Messrs. Young and Co., Hatherley, Cheltenham, for which a gold medal was awarded. *White Perfection*, *Cheltonia*, *Winsor*, *Queen*, *Mikado*, *Duchess of Devonshire*, *May Day* and *Golden Glory* were specially-noticed varieties.

Other exhibitors of *Carnations* were Messrs. Kent and Brydon of Darlington; Mr. A. F. Dutton, The Nurseries, Iver, Bucks; and Messrs. Stuart Low and Co., Bush Hill Park. The last two firms were the recipients of gold medals, and the former a silver-gilt medal for *Carnations* and other plants.

Several very good groups of *Ferns* were staged. The most extensive one was from Messrs. H. B. May and Sons. This exhibit was awarded a gold medal.

Another excellent group of *Ferns*, for which a silver medal was awarded, was staged by Mr. H. N. Ellison, West Bromwich. Some of his most conspicuous sorts were *Polypodium Knightii*, *Nephrolepis Neubertii*, *Pteris Parkeri* and various *Gymnogrammas*.

Another medal-winning group of *Ferns* was arranged by Messrs. E. J. Batchelor and Sons, nurserymen, Harrogate. It included many good *Davallias*.

VEGETABLES.

The Hon. Vicary Gibbs, Aldenham House, Elstree, obtained a gold medal for an excellent group of vegetables, which had been grown chiefly, apparently, from Sutton's seeds. Sutton's *Centenary Pea*, *Peachblow Tomato* and Sutton's *Exhibition Longpod Bean* were objects of great attention from visitors.

The Duke of Portland was the only exhibitor in the class for eight distinct kinds of vegetables. Each example was a model of cultural skill. The group included Sutton's *White Leviathan Onion*, *Magnum Bonum Cauliflower*, *Favourite Carrot*, *Satisfaction Tomato*, *Perfection Marrow*, *Gladiator Potato*, *Centenary Pea* and *King George Cucumber*.

Another group of vegetables which created considerable interest was that of Messrs. Toogood of Southampton. It was very nicely arranged on a groundwork of young grass, and included, among other varieties, *Cauliflower Her Majesty*, *Dainty Marrow*, *Spring Perfection Lettuce* and *Best of All Carrot*.

FRUIT.

Fruit was well shown, but the two most conspicuous exhibits were those of the Duke of Portland and The King's Acre Nursery Company. The first-named consisted of a tastefully-laid-out table of *Grapes*, *Peaches*, *Nectarines*, *Figs*, *Plums*, *Cherries*, *Apples*, *Pears*, &c., among which *Muscat of Alexandria*, *Foster's Seedling* and *Black Hamburg Grapes*, *Brown Turkey Figs*, *Lady Sudeley* and *James Grieve Apples*, *Spencer*, *Early Rivers* and *Pineapple Nectarines*, and *Royal George Peach* were prominent. The King's Acre group consisted of excellently grown and fruited orchard trees in pots. *Apples*, *Pears*, *Figs*, *Grapes*, *Currants*, *Peaches*, &c., were noticed.

The Duke of Portland also took the foremost place in the various classes for *Grapes*, Mr. Charles Thellusson of Brodsworth Hall, Doncaster, being the runner-up in several cases. The latter gentleman took the first prize for four dishes of *Strawberries*, his fruit being finely coloured and of good size.

TRADE GROUPS.

Rhododendrons, *Kalmia latifolia* and other flowering shrubs were exhibited by Messrs. John Waterer of Bagshot. Good late *Rhododendrons* in the group were *Maggie Heywood*, *Beauty of Bagshot*, *B. W. Elliot*, *Profusion* and *Sunshine*. The group was in every way a credit to the firm. It was awarded a gold medal.

Messrs. Kent and Brydon of Darlington obtained a silver-gilt medal for their groups of *Hydrangeas*, *rock plants* and *Carnations*, all of which were of a showy character.

A gold medal went to Mr. Charles Thellusson for a group of mixed decorative plants.

Messrs. Pennell of Lincoln received a gold medal for a very creditable mixed group of foliage and flowering shrubs.

Messrs. Godfrey of Exmouth showed excellent *Pelargoniums*, *Canterbury Bells*, &c.

Messrs. Whitelegg and Page, Chislehurst, showed a group of the *Newberry*, a hybrid between *Loganberry* and *Raspberry Superlative*.

Messrs. Sutton and Sons, Reading, provided a brilliant display of *Gloxinias*, of which *Reading Scarlet*, *Sutton's Purple* and *Her Majesty* were very distinct. The same firm had a good mass of *Nemesias*.

Messrs. Dickson and Robinson, Manchester, staged a large group of *Rhododendron sinense* and another of cut flowers, wherein *Delphiniums* and *Gaillardias* were the most conspicuous feature.

Dawe's Challenge *Rhubarb*, with a number of other varieties for comparison, came from Mr. T. E. Dawe, Syderstone Nurseries, Norfolk.

Mr. W. Sydenham, Melbourne, Derbyshire, exhibited a large collection of *Violas*, of which *Lady Knox*, *Mary Bournie*, *Starling*, *Lizzie Wallace*, *Sport*, *Canary*, *Mrs. W. McQueen* and *Mrs. J. H. Rowland* were prominent.

Messrs. Jarman, Chard, exhibited *Roses*, *Stocks*, *Sweet Peas* and new *Centaureas*.

Table decorations were provided by Messrs. W. Edwards and Sons, Woodbridge Drive, Sherwood. These were chiefly of *Roses* and *Sweet Peas*, and created much interest.

Messrs. John K. King and Sons, Coggeshall, Essex, provided an excellent group of vegetables and *Sweet Peas*.

Mr. C. F. Waters, Deanland Nurseries, Balcombe, Sussex, sent a fine group of *Carnations*.

Messrs. Seagrave and Co., Market Hall, Sheffield, had good Violas, Delphiniums and a good group of the showy Kalanchoe Flammula.

From Messrs. W. and J. Brown, Peterborough, came an extensive collection of cut branches of shrubs and herbaceous plants.

The West End Nurseries, Chesterfield, sent a handsome group of mixed shrubs.

Messrs. Bakers of Wolverhampton provided an excellent rock and water garden, wherein Water Lilies and Iris Kämpferi were conspicuous. For this group a gold medal was awarded.

Other exhibitors of good groups, competitive and non-competitive, were Mr. Charles Warner, Abbey Nurseries, Leicester; Messrs. S. Broadhead and Son, Wooldale Nurseries, Thongsbridge; Messrs. Clibrans, Manchester; Messrs. B. R. Cant, Colchester; and Messrs. J. Burrell and Co., Cambridge.

A group of Cacti staged by Mr. Ellison created a great deal of interest. They were planted in soil, but would have been more attractive had sandstone been introduced with the soil. The judges awarded a silver medal for the group.

SWEET PEAS.

These occupied a considerable area, and a number of well-grown and well-set-up groups were staged.

Messrs. E. W. King and Co. of Coggeshall, Essex, formed a large group, in which the following varieties were conspicuous: Anglian Pink, Anglian Cream, Hercules, Florence Nightingale, Mrs. Reginald Hill, Thomas Stevenson, Anglian Cerise, Earl Spencer, Anglian Orange, Anglian Blue, Dorothy and Constance Oliver.

Another excellent exhibit was that of Mr. Robert W. Bolton, Warton, Carnforth. R. F. Felton, Sunproof Crimson, Mrs. W. J. Unwin, Stirling Stent, Andrew Aitken, Clara Curtis, Agricola and May Campbell were among the most conspicuous.

Another large group was staged by Messrs. R. H. Bath, Limited, Wisbech.

Miss Hemus, Upton-on-Severn, provided a further excellent display.

These groups were all given awards.

ROSES.

Roses formed another attractive feature of the exhibition. In the prize class for mixed groups, Mr. F. M. Bradley, Rose-grower, Peterborough, was first with well-coloured blooms, of which Ulrich Brunner, Lyon, Edward Mawley, J. B. Clark and Irish Elegance were to the front.

FORESTRY SECTION.

In this section Messrs. Fisher, Son and Sibray, Handsworth Nurseries, Sheffield, and Messrs. Dicksons, Chester, formed extensive groups of ornamental trees and shrubs, while boards, &c., were sent by many people.

The gold medal for the most interesting exhibit went to the Earl of Yarborough for an extensive collection of planks, burrs, creosoted wood, photographs of woodland scenery, &c. Mr. Havelock, the Earl's head-forester, is to be congratulated on his excellent exhibit.

ROYAL SCOTTISH ARBORICULTURAL SOCIETY.

THE members of the Royal Scottish Arboricultural Society held their annual excursion during the week ending June 30. The places visited were on Deeside, and the first items on the programme were the woods of Ballochbuie Forest, on the Balmoral estate of the King, and those of Mr. Farquharson at Invercauld. These were visited on June 25, the party numbering about one hundred. On the following day they resumed their inspection of the Royal forests, and were graciously provided with luncheon by His Majesty. At the luncheon Sir John Stirling-Maxwell, the president, proposed the King's health, and expressed the admiration of the members at what they had seen in the Royal woods, which are under the care of Mr. J. Michie, M.V.O., the King's agent. On June 27 and 28 the woods on the property of Mr. W. Dyce Nicol, Ballergie, and those at Finzean, the property of the Right Hon. Mr. Farquharson, were inspected, and the party dispersed on June 28, greatly pleased with their thirty-fifth annual excursion.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of the Scottish Horticultural Association was held at their rooms, 5, St. Andrew Square, Edinburgh, on the evening of July 2. There was a good attendance, presided over by Mr. W. H. Massie, president of the association. Several exhibits were staged, including two bearing upon the subject of the lecture of the evening, which was on Geraniums and Pelargoniums. Messrs. Dobbie and Co., Edinburgh, exhibited a large and interesting collection of Regal and other Pelargoniums, and of sweet-scented, variegated and other "Geraniums." Mr. R. M'Andie also exhibited Pelargoniums. Other exhibits included pots of Sweet Peas from the Edinburgh and East of Scotland College of Agriculture to show the effects of helpful and injurious bacteria, these being grown under the charge of Mr. G. P. Berry, the Horticultural Instructor to the College. Messrs. Dicksons and Co. and Mr. J. Fraser, Inverkeithing, also sent exhibits.

The lecture was by Miss Burton, New Saughton Hall, and was an unusually excellent one, giving a historical review of the genus Pelargonium and of the introduction of the plants into this country. Miss Burton discussed the evolution of the present varieties from the different species, and dealt with their cultivation and their most valuable utilisation with other plants. A hearty vote of thanks was awarded to the lecturer.

NATIONAL ROSE SOCIETY'S SHOW.

FAVoured by a perfect day, the National Rose Society held its wonderful exhibition of Roses in the Royal Botanic Gardens, Regent's Park, N.W., on Tuesday last. It was unquestionably a magnificent show; the excellence of the blooms in all classes was remarkable. The huge banks of garden Roses and the high quality of the blooms in boxes came in for general admiration. Once again Her Majesty Queen Alexandra honoured the show by a visit, making a long stay and a very careful inspection of the Roses in all the tents.

NURSERYMEN.

There were five entries for the Champion Trophy, for seventy-two blooms distinct. This is one of the most important classes and the centre of keen interest. Messrs. Alexander Dickson and Sons, Limited, Newtownards, County Down, were the fortunate winners, showing perfect blooms of Mrs. W. J. Grant, Earl of Warwick, Gustav Grunerwald, Leslie Holland, Lyon Rose and Juliet. Messrs. R. Harkness and Co., Hitchin, and Messrs. D. Prior and Sons, Colchester, followed closely in the order named.

Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, were first for forty distinct varieties, three blooms of each, showing Lyon Rose, Dean Hole, a perfect trio of Claudius, and Ulrich Brunner, all in good form.

There is always a keen competition for the D'ombrain Cup, for twenty-four Teas and Noisettes. This year it was again won by Mr. George Prince of Oxford, followed by Messrs. D. Prior and Son, Colchester, and Mr. J. Pigg, Royston, Herts. Among the best Roses in this class were Maréchal Niel, Maman Cochet and Mrs. Edward Mawley.

For twelve Teas and Noisettes, Messrs. J. Burrell and Co., Cambridge, were first, followed by Mr. J. Mattock, Oxford, and Mr. W. R. Chaplin, Waltham Cross.

The President's prize, for nine baskets of cut Roses, was won by Mr. W. Easlea, and here we would say that the baskets of Roses provided one of the most charming features of this great exhibition.

Mr. W. R. Chaplin, Waltham Cross, was first for five baskets of Roses.

Mr. G. Prince was first for sixteen Teas and Noisettes, three blooms of each. Mme. Constant Soupert and Maréchal Niel were both conspicuous in this class. Mr. Henry Drew, also of Longworth, was second, and Messrs. W. Crisp and Sons, Colchester, third.

The China Challenge Trophy, for forty-eight blooms, was won by Mr. G. Prince, whose Roses were in tip-top form on this occasion. Messrs. G. and W. H. Burch, Peterborough, and Mr. Frank Woollard, Brighton, were second and third respectively.

Messrs. Chapman and Collins, Royal Road, Leicester, were first for twenty-four blooms, showing first-rate flowers of Captain Hayward and Helen Keller.

For sixteen distinct varieties, three blooms of each, Messrs. G. and W. H. Burch, Peterborough, were successful, showing a grand trio of Mildred Grant.

For twelve vases, seven blooms of each, Messrs. Alexander Dickson and Sons, Limited, were first, showing fine vases of Earl of Warwick and Duchesse de Morny. Messrs. D. Prior and Sons, Colchester, followed closely.

Mr. W. R. Chaplin, Waltham Cross, secured the first place for sixteen varieties of decorative Roses with a nice selection in the pink of condition.

In a similar class for nine varieties, Mr. E. J. Hicks, Hurst, Berks, was first with a remarkably bright and showy collection, including Ecarlate, Lady Hillingdon and Countess of Gosford.

For eighteen varieties of decorative Roses, Mr. John Pigg, Royston, Herts, secured the premier award, and Mr. J. Mattock, Oxford, was a good second.

Mr. G. Prince was once again to the fore with Teas and Noisettes for nine varieties. Mrs. Mawley and Mme. Constant Soupert were remarkably good. The superiority of these Roses from the Oxford district was shown by the fact that Mr. Drew, Longworth, and Mr. J. Mattock, Oxford, were the runners-up in this class. Thus all three prizes went to the same neighbourhood.

For thirty-six distinct varieties, first prize went to Messrs. Frank Cant and Co., Colchester, who staged a fine collection. Prominent were A. R. Goodwin, Marie van Houtte, Duchess of Wellington and Rayon d'Or. Blush Rambler, Minnehaha, Excelsa and Lady Godiva were well shown. The judges had some difficulty in awarding the premier prize for this class. Mr. John Mattock, The Rose Nurseries, Oxford, showed Duchess of Wellington, James Coey and Lady Battersea. Among the Ramblers, good vases of Blush Rambler, Trier and White Dorothy Perkins were prominent. This group took the second prize, being little behind Messrs. Cant's collection. Messrs. W. Spooner and Son, Woking, showed in their collection, which was awarded third prize, Mrs. Herbert Stevens, Mme. Second-Weber, Prince de Bulgarie and Mme. Ravary. Dorothy Perkins, Farquhar and Excelsa were good exhibits. Messrs. Paul and Son, Cheshunt, showed Mrs. A. Tate, Mme. A. Mari, Duchess of Wellington and Liberty. The vases of rambling varieties were spoiled by excessive foliage. A disappointing exhibit from this well-known firm.

For nine distinct varieties of new decoratives Mr. E. J. Hicks, Hurst, Berks, was awarded first prize. His exhibit comprised Jessie, Theresa Bevan, Orleans Rose, Mrs. Herbert Stevens, Mrs. Wakefield Christie Miller, Excelsa, Simplicity and Mrs. Waddell. The second prize went to Mr. George Prince, Longworth, who included Rayon d'Or

and Chateau de Clos Vougeot in his collection. Messrs. Spooner and Sons, Woking, were third.

In the class for twenty-four blooms, in two varieties, twelve white and twelve red, Mr. Walter Bentley, Rose Nurseries, Leicester, took first prize with good blooms of J. B. Clark and Mrs. Foley Hobbs. Messrs. D. Prior and Sons, Colchester, were second with Frau Karl Druschki and J. B. Clark; and Messrs. B. R. Cant and Sons, Colchester, third with Ulrich Brunner and Frau Karl Druschki.

In the class for a representative group of cut Roses occupying a space not exceeding 20 feet by 3 feet, with own foliage, Messrs. Harkness and Co., Hitchin, gained first award with a glorious exhibit, in which the most prominent blooms were Lyon Rose, Edu Meyer, Mme. Melanie Soupert, Dean Hole, Hugh Dickson and Mrs. W. J. Grant. The pillar varieties were also well staged. The second prize was gained by Messrs. G. Jackman and Son, Woking, who staged in their group The Lyon, Mrs. A. R. Waddell, Mme. Ravary, Mme. Abel Chatenay, &c. The third prize in this class went to Mr. Henry Morse, Westfield Nurseries, Norwich, who showed the new varieties Friedrichsruh, Lady Pirrie, Rayon d'Or and J. C. Waud.

In the class for twelve blooms of new distinct varieties the first prize was awarded to Messrs. Hugh Dickson, Royal Nurseries, Belfast, for magnificent specimens of Mabel Drew, Marquise de Ganay, Countess of Shaftesbury, Mrs. Herbert Stevens, Mrs. Richard Draper, Mrs. Sam Ross, Jonkeer J. L. Mock, Leslie Holland, Ethel Malcolm, Edward Mawley, Charles de Lapise and King George V. The second prize was awarded to Messrs. A. Dickson and Sons, Limited, Newtownards, County Down, who staged, among others, Meta Weldon, a grand Leslie Holland and Mrs. Amy Hammond. The third prize also went to Ireland, the exhibit of Messrs. S. McGredy and Son, Portadown, securing this. Juliet was the best bloom in this collection. This class was a triumph for Irish growers.

For eighteen distinct varieties of decoratives Mr. Charles Turner, Slough, was first. The most notable vases were those of Betty, Excelsa and Orleans.

For a representative group occupying 33 feet by 3 feet Messrs. W. and J. Brown, Peterborough, staged a magnificent exhibit, which richly deserved the first prize awarded to it. The Lyon Rose, Liberty and White Maman Cochet stood out among other fine groups. Mr. F. M. Bradley, Church Street, Peterborough, was second. Lady Hillingdon, Horace Vernet, Mme. M. Soupert and Avoca were prominent against a background of ramblers in variety. The third award went to Messrs. Stuart Low and Co., Bush Hill Park, for a very neat exhibit.

For twelve distinct varieties of wichuraianas Messrs. Frank Cant and Co. gained the first prize, their collection including Delight, Alberic Barbier, Excelsa and Lady Godiva. The second prize went to Mr. E. J. Hicks, Hurst, Berks, whose sweetly pretty Evangeline attracted Queen Alexandra on her tour round the show. Messrs. Charles Turner and Co., Slough, took third prize in this class, and might have done even better with lighter arrangement of the blooms.

For eighteen distinct decoratives Messrs. W. Spooner and Son, Woking, were awarded first prize. Philadelphia and the common Moss Rose were very attractive.

Messrs. Hugh Dickson, Limited, Belfast, took the premier award for nine blooms of any new Rose with beautiful specimens of Leslie Holland, a crimson Hybrid Tea. Messrs. Samuel McGredy and Son were second with Ethel Malcolm; and Messrs. Alex. Dickson and Sons third with Mrs. Cornwallis-West. Another triumph for the distressful country.

For eighteen blooms of any Tea or Noisette Mr. G. Prince of Longworth was first with Mrs. Foley Hobbs, Messrs. F. Cant and Co. second, and Messrs. D. Prior and Sons third, the last two with very fine blooms of White Maman Cochet.

Mr. John Mattock, Oxford, exhibited the first-prize ladies' sprays, three in number. Mrs. F. H. Cooke, Colchester, was second, and Mrs. W. P. Panckridge, Petersfield, and Messrs. J. Jefferies and Son, Limited, Cirencester, were equal third.

The gold medal and first prize for a group not exceeding 250 square feet were won by Messrs. Paul and Son, Cheshunt, who put up a splendid collection comprising wichuraianas in pots, and baskets of cut specimen Hybrid Teas, such as Mme. Ravary, Richmond and George Laing Paul. Among the Hybrid Perpetuals we noticed Hugh Dickson and Duke of Wellington. The group was tastefully arranged, and edged around with Maidenhair Ferns. Messrs. Hobbies, Limited, East Dereham, were awarded the second prize for a meritorious effort. Prominent were standards in variety. A new delicate single pink named Pink Pearl, obtained by crossing Una and Irish Elegance, seems very promising.

For eighteen blooms of any Rose other than Hybrid Perpetual, Tea or Noisette, Messrs. H. Dickson were first with Leslie Holland. Mr. Walter Bentley, Leicester, second with Mrs. Theodore Roosevelt; and Mr. W. R. Chaplin, Joynings Nurseries, Waltham Cross, third with The Lyon.

For eighteen Hybrid Perpetual blooms Messrs. Hugh Dickson, Limited, Belfast, gained premier honours. Unfortunately, before our representative could note the exhibit, it was removed. Walter Stevens, Esq., Fair Oak, Radlett, was a good second with Frau Karl Druschki. Mr. George Prince, Longworth, was third, also with Frau Karl Druschki.

AMATEURS.

The chief competition under this heading is the class for thirty-six blooms, distinct varieties, open to all amateurs, and is designated the Amateur Champion Class. There were no fewer than seven entries, and they made a grand display.

First prize and the accompanying honours fell to Mr. E. M. Eversfield, Denne Park, Horsham, who achieved this great distinction for the first time with a magnificent lot of blooms, conspicuous among which were J. B. Clark, Dean Hole, Ulrich Brunner, Lady Alice Stanley, Mildred Grant, Alfred Colomb, Lady Ashtown, Hugh Dickson, Mrs. Edward Mawley, Ethel Malcolm, Mrs. John Laing, Juliet, John Stuart Mill, Mamie, The Bride, Avoca and Souvenir de Pierre Notting. This was a deservedly popular win. The veteran grower, Mr. E. B. Lindsell, Bearton, Hitchin, Herts, was an uncomfortably close second, losing considerably in consequence of staging a stale bloom of Mme. C. Soupert. He had grand examples of Mildred Grant, Mrs. Stewart Clark, Yvonne Vacherot, William Shean, J. B. Clark, Maman Cochet, S. Marie Rodocanachi, Helen Keller, Duchess of Bedford, Charles Lefebvre, Hugh Dickson and Dr. O'Donel Brown. Third prize was won by Mr. F. Dennison, Cranford, Leamington, with a fresh lot of blooms; and fourth prize was secured by Mr. Conway Jones, Hucclecote, Gloucester.

Next in importance is the class for thirty-four blooms, distinct, for the Ben Cant Memorial Prize. In this class there were five entrants, leading honours falling to the lot of Mr. E. B. Lindsell, who had a grand series of blooms. Mildred Grant, Mrs. John Laing, Dr. O'Donel Brown (very fine), Ulrich Brunner, Beauty of Waltham, Mrs. F. Roosevelt, Dupuy Jamin and Hugh Dickson were the best blooms. A fresh, clean, though smaller lot of flowers placed Mr. F. Dennison second. John Ruskin, Pharisæer, Lyon Rose, Mrs. Edward Mawley and Helen Keller were conspicuous examples. Third prize was awarded to Dr. T. E. Pallett, Earls Colne, Essex, for a somewhat uneven series.

In the same division, for a class representing three blooms each of twelve varieties, three were four competitors. A good first was forthcoming in Mr. E. B. Lindsell, who led the van with grand examples of Mrs. John Laing, Ulrich Brunner, Mildred Grant, Frau Karl Druschki, Alfred Colomb, Maman Cochet, Mrs. Theodore Roosevelt, Dr. O'Donel Brown, Lady M. Beauchere, Her Majesty and Mme. J. Gravereaux. Mr. F. Dennison secured second prize with a charming lot of flowers, in which J. B. Clark, Mildred Grant and Lady Ashtown stood out from the rest. Mr. Conway Jones was third, also showing well.

There were but two entries in the class for nine blooms of any Rose except Tea or Noisette. Dr. T. E. Pallett well deserved the first, which he won with splendid examples of Avoca. Second prize was awarded to Mr. G. A. Hammond, Cambrian House, Burgess Hill, Sussex, with Ethel Malcolm.

OPEN TO GROWERS OF FEWER THAN 3,000 PLANTS.

The three exhibits of twenty-four blooms, distinct varieties, was an interesting display. The Hobbies Challenge Cup and first prize were won by Mr. W. Boyes, Middleton-on-the-Wolds, East Yorks, with a bright and pleasing series of fresh blooms. Mildred Grant, Gloire de Chedane Guinoisseau, Mme. Melanie Soupert, Lyon Rose, George C. Waud and Pharisæer were all noteworthy. Second prize was secured by the Rev. R. Powley, Warminster, with a less even display; and third prize was secured by Mr. H. R. Darlington, Park House, Potter's Bar.

In the same category, in a class for nine blooms of any Rose except Tea or Noisette, Mr. E. M. Eversfield led the four competitors with superb examples of Ulrich Brunner; second prize being awarded to the Rev. R. Powley with rather small specimens of Frau Karl Druschki, and third prize was won by Mr. W. Boyes with small examples of Dean Hole.

OPEN TO GROWERS OF FEWER THAN 2,000 PLANTS.

For the Christy Challenge Cup, offered as first prize in a class for twenty-four blooms, distinct varieties, the five entrants made a really fine display. Leading honours fell to the lot of Mr. W. Onslow Times, Hitchin, Herts, who had a heavy lot of blooms of good quality generally—Mildred Grant, William Shean, Gustave Piganeau, Mrs. John Laing, Mrs. Foley Hobbs, Mme. Victor Verdier, Mrs. T. Roosevelt, White Maman Cochet, Maman Cochet, Marquise Litta and Duchess of Portland. A bright series of blooms secured second prize for Mr. Gulliver Speight, The Square, Market Harborough; Caroline Testout, Mrs. John Laing and Horace Vernet were good. Third prize was awarded to Mr. F. Slaughter, Steyning.

There were but three exhibits in the class for eighteen blooms, distinct varieties. First prize was placed to the credit of Mr. John Hart, Lochinver, Little Heath, Potter's Bar, who had a grand lot of flowers. Avoca, Elizabeth, Helen Keller, W. Shean, Mrs. John Laing, Lohengrin, Victor Hugo and Maman Cochet were some of the better examples in this series. Second prize was won by Mr. G. R. Bonner, Barnwood, Gloucester, with a very clean and fresh lot of flowers. Mildred Grant, White Maman Cochet, Mme. Melanie Soupert, Mrs. Foley Hobbs and Hugh Dickson were all first-rate. Mr. H. Balfour, Langley Lodge, Headington Hill, Oxford, was third.

For six blooms of any Rose except Tea or Noisette there were five exhibitors, Mr. W. Onslow Times leading with beautifully-finished specimens of Mildred Grant. With splendid examples of F. Pemberton Mr. Gulliver Speight was a good second; and with Dean Hole Mr. R. de V. Pryor, Preston, Hitchin, was placed third.

OPEN TO GROWERS OF FEWER THAN 1,000 PLANTS.

In a class for twelve blooms, distinct varieties, for a piece of plate offered by Mr. O. G. Orpen, the eight competitors were led by Dr. Charles Lamplough, Kirkstall, Alverstone, who had a magnificent box of blooms. Mildred Grant, Hugh Dickson, William Shean, Mme. Jules Gravereaux, White Maman Cochet, Her Majesty, Frau Karl Druschki, Ulrich Brunner, Lady Ashtown, Bessie Brown, Mme. Constant Soupert and Lyon Rose were shown in

good form and condition. Second prize was secured by Mr. H. L. Wettern, Waratah, Sanderstead, Croydon, who also had a capital lot of blooms. Mrs. T. Roosevelt, Ulrich Brunner, Mildred Grant and Mrs. John Laing were noteworthy. Third prize was awarded to Mr. Mahlon Whittle, 60, Belgrave Avenue, Belgrave, Leicester.

There were seven entries in the class for six blooms of any Rose except Tea or Noisette, Mr. Mahlon Whittle winning first prize with a fine series of Her Majesty. Second prize was secured by Mr. Francis Crawley, Stockwood, Luton, with charming examples of Hugh Dickson; and with Bessie Brown Dr. Charles Lamplough won third prize.

OPEN TO GROWERS OF FEWER THAN 750 PLANTS.

The seven exhibits of twelve blooms, distinct varieties, in this section made a grand display. First prize was well won by Mr. E. B. Lehmann, Ifield Lodge, Crawley, Sussex, with a bright and even lot of flowers. Gustave Piganeau, Mildred Grant, Mrs. John Laing, A. K. Williams and Bessie Brown were the most noteworthy flowers. A beautiful box of blooms secured second prize for Mr. D. H. Davies, Witheridge, Beaconsfield. Tom Wood, Hugh Dickson, Ulrich Brunner, Earl of Warwick, Caroline Testout and Duchess of Portland were all good. Mr. H. W. Richards, Westridge, near Ryde, was a good third, having a grand example of Leslie Holland.

There were five exhibits in the class for six blooms of any Rose except Tea or Noisette. Mr. E. B. Lehmann was first with Mrs. John Laing; Mr. D. H. Davies second with Frau Karl Druschki; and third prize went to Mr. Bertram J. Walker, Welby House, Market Deeping, Lincs, with noteworthy examples of Mildred Grant.

In a class for four trebles, open to exhibitors in the classes already enumerated, there were no fewer than seven entries. First prize was awarded to the Rev. F. R. Burnside, Great Stambury Rectory, Essex, who showed well Maman Cochet, Mrs. Theodore Roosevelt, White Maman Cochet and Dean Hole. Second prize was secured by Dr. Charles Lamplough with Her Majesty, among other good things in fine form and condition. A capital lot of blooms placed Mr. Gulliver Speight third.

OPEN TO GROWERS OF FEWER THAN 500 PLANTS.

The leading class in this division was one for nine blooms, distinct varieties. Of the five entrants, Mr. W. Upton, 16, Claremont Street, Leicester, was the leading exhibitor. These were a very praiseworthy lot of blooms, and John Ruskin, Mrs. Theodore Roosevelt and Mildred Grant were the more conspicuous examples. Second prize was secured by Mr. J. M. Stuart, Broomhill, Mount Park, Harrow, who staged excellent flowers. An excellent third was found in Mr. P. T. Davis, North Warners, Burgess Hill. Maman Cochet, Bessie Brown and Lyon Rose were all good.

There were no fewer than nine exhibits in the class for six blooms, distinct varieties, a good first being found in Mr. H. Clinton Baker, Bayfordbury, Hertford. Marie Baumann, White Maman Cochet, Mme. Melanie Soupert and Maman Cochet were his best flowers. Second prize was awarded to Mr. G. C. Sawday, Beechfield, The Common, Weybridge, who had J. B. Clark and Mildred Grant in superb form. Third prize was secured by Mr. W. P. Panckridge, Petersfield, Hants.

Of the seven entrants in the class for six blooms of any Rose except Tea or Noisette, a fine lot of blooms of William Shean were deservedly placed first. These came from Mr. W. Upton. Second prize was won by Mr. R. M. Munro, Mill Fields, Nantwich, who had Lady Ashtown in good form and condition; and with Frau Karl Druschki Mr. Stuart Hogg was third.

OPEN TO GROWERS OF FEWER THAN 350 PLANTS.

There were eight entries for the piece of plate offered in the class for nine blooms, distinct varieties, first prize being awarded to Mr. E. F. Brown, Lynton, Sussex Place, Slough, who had in his box of blooms good examples of Hugh Dickson, Mildred Grant, Horace Vernet, Laurent Carle and Caroline Testout. Mr. J. Smart, Sherwood, Stevenage, was placed second, Helen Keller and Lady Ashtown standing out conspicuously. Third prize was secured by Mr. W. Moore, The Dahlias, Prest Hill, Caversham.

There were five entries in the class for six blooms of any Rose except Tea or Noisette, and in this competition Mr. F. B. Biggleston, Jesmond, Puckle Lane, Canterbury, was placed first with Frau Karl Druschki; Mr. Vivian Wood, Kildare, Rickmansworth, second, with Mrs. John Laing; and with the same variety Mr. W. Moore was again third.

For four trebles in the two divisions immediately preceding there were no fewer than eight exhibitors, and the display they made was distinctly good. First prize was well won by Mr. W. Upton, who staged in his series J. B. Clark and Mrs. Theodore Roosevelt in splendid form. Second prize was won by Mr. P. T. Davis, who showed extremely well, and third prize was placed to the credit of Mr. W. P. Panckridge, who ran the second prize winner very closely. Mme. Jules Gravereaux was very fine on the stand of the latter.

OPEN TO GROWERS OF FEWER THAN 200 PLANTS.

This is always a popular division, and for the piece of plate offered by the late Mr. C. J. Grahame there were no fewer than nineteen entries. First-prize honours rested with Mr. F. G. Padwick, The Mount, Petersfield, who had Her Majesty, Lyon Rose, Bessie Brown, Frau Karl Druschki, Hugh Dickson and Pharisæer in excellent condition. Second prize was secured by Mr. B. D. Thompson, and third prize by Mr. H. F. Matthews, Berkeley House, Stevenage.

** * Owing to the demand on our space, we are compelled to hold over a portion of the report of the National Rose Show, also the reports of the National Sweet Pea, Bourne-mouth, Scottish Pansy and Viola, Parkstone, and Norfolk and Norwich Shows, until next week.*

Royal Appointment.—We learn that Messrs. Dobbie and Co., Edinburgh, who held appointments as Seedsmen and Florists to the late Queen Victoria and King Edward VII., have now been honoured with a like appointment to His Majesty King George V.

Gardening Appointment.—We understand that Mr. E. Harriss, who for some years has been indoor fruit foreman in the Royal Gardens, Windsor, has been appointed head-gardener to Lady Wantage at Lockinge Park, Wantage, Berks. This position was previously held by the late Mr. W. Fyfe, whose lamented death was announced in our issue last week.

Presentation to Mr. J. J. Teasdale.—Recently Mr. J. J. Teasdale was the recipient of a handsome smoker's cabinet from the committee of the Milton and Stevenston Horticultural Society. For the last four years he had been hon. secretary of this society, and till lately was head-gardener at Milton Hill, Berks, which is now up for sale. He was a frequent exhibitor at Wantage and other shows in the district.

Prize-winners at the International Show.—We have received the official list of jurors and prize-winners at the recent Royal International Horticultural Exhibition. This is published by the directors in book form, and should prove a useful and interesting souvenir of this great show. It is splendidly printed, and well bound in neat covers.

National Sweet Pea Society's Show.—This exhibition, which was held on Tuesday and Wednesday last in the Horticultural Hall, Vincent Square, Westminster, proved a great success, notwithstanding the fact that the opening day clashed with the London show of the National Rose Society. Generally speaking, the flowers were in splendid condition, but many varieties showed a tendency to throw double standards, and the inclusion of these in some of the exhibits led to a good deal of disqualification. The principal cups were eventually won as follows: The Sutton Cup, Mr. A. Moring, gardener to A. W. Stirling, Esq., Goring; the Henry Eckford Memorial Cup, Mr. A. E. Usher, gardener to Sir Randolph Baker, Bart.; the E. W. King Challenge Cup, Mr. A. F. Blades, Reigate; the Burpee Cup, Mr. W. E. Alsen, Denmead, Hants; the Breadmore Challenge Plate, Mr. A. Cowdry, Lock Hall, Ireland; the Hawlmark Challenge Cup, Mr. T. Jones, Ruabon; the Horace Wright Challenge Cup, Mr. W. H. Holloway, Shrewsbury; and the Walter Voss Challenge Cup, Mr. E. G. Gee, Chesham, Bucks. We hope to publish a full report of the show in our next issue.

"Country Life" for July 13 contains, among other articles, an illustrated account of "Kinross House, Kinross"; "Tale of Country Life: Among the Goosehills," by J. M. Dodington; "The Royal Society.—I." (illustrated), by Henry B. Wheatley; "Animal-life in the Egyptian Desert," by Algernon Blackwood; "Isle of Wight Bee Disease" (illustrated), by A. E. Shipley, F.R.S.

SWEET PEAS AT REIGATE SHOW.

In our report of the Reigate Show, which appeared last week, Messrs. Dobbie and Co. were accredited with a silver-gilt medal for Sweet Peas. This should have been a gold medal.

PUBLICATION RECEIVED.

"The Transactions of the National Chrysanthemum Society for the Year 1911." Secretary, Mr. R. A. Witty, 72, Savernake Road, Gospel Oak, N.W. Price 1s. to non-members.

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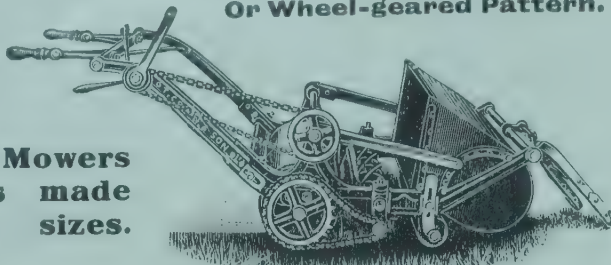
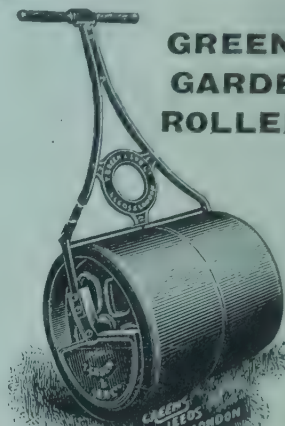
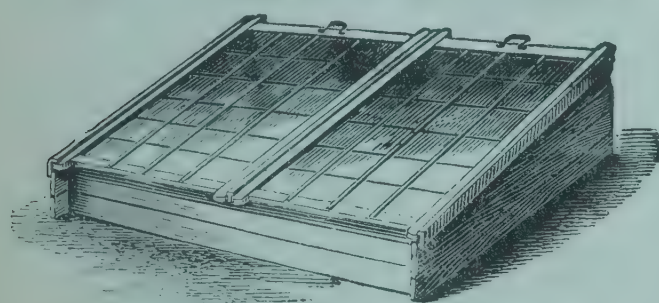
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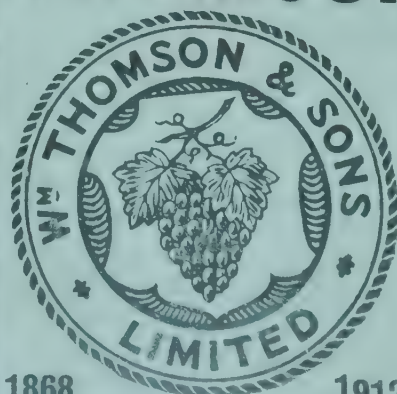
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THE GARDEN.

No. 2122.—VOL. LXXVI.

JULY 20, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Office: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Sweet Peas in Dumfriesshire.—Among the considerable number of places in Dumfriesshire where Sweet Peas are cultivated in the most successful way is Castlemilk, Lockerbie, the garden of Sir R. W. Buchanan-Jardine, Bart., where his gardener, Mr. John Jeffrey, grows them well. Many of the stems this year have been 22 inches long with flowers in proportion. Senator Spencer, Clara Curtis, May Campbell, Mrs. C. W. Breadmore and many others have been exceptionally fine. Deep and thorough cultivation is practised at Castlemilk, and the reward is seen in the shape of magnificent flowers.

Roses and Sweet Peas at Purley.—One of the best local shows it has been our privilege to see was held by the Purley Rose and Horticultural Society on Saturday last in the grounds of Upper Woodcote, the residence of the president, Mr. William Webb. The Roses, notwithstanding the early season, were exceptionally good, and competition was very keen indeed. Sweet Peas, too, were also good, though in a few instances the effect of the hot weather was too apparent. Seeing that Purley boasts a road nearly a mile in length, bordered on each side with rambler and dwarf Roses, it is not surprising that these flowers are popular in the locality. Bordering another road near by is a beautiful herbaceous border, a feature that might well be adopted in many so-called garden suburbs.

Mulberry with Two Kinds of Flowers.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. Luxmoore of Eton wrote regarding a Mulberry in his garden which showed a tendency towards dioecism. The staminate flowers were all upon one part of the tree, with but few pistillate ones among them. The pistillate flowers were mostly upon the other branches, and the separation of the two forms of flower was almost complete upon the different parts of the tree. Mr. Wilks said that a tree in his garden always produced the two forms on separate branches, and the leaf colouring was quite distinct, and had been so for many years. Mr. Hales said the same was true of two trees in the Chelsea Physic Garden, and was constant. It would be of interest to see the behaviour of plants raised from cuttings from the distinct parts of the trees.

Flowers at the General Post Office.—It will be of interest to a great many of the general public to learn that among the employes at the General Post Office there are many enthusiastic amateur gardeners, and that at least two distinct horticultural societies exist there. One is the St. Martin's Horticultural Society, and the other the Central Telegraph Operators' Society. Both held their summer shows last week at the General Post Office, and it was interesting to see the perfection

to which flowers, fruits and vegetables had been brought by the men and women who deal with our telegrams and letters. Sweet Peas, Violas and Roses were perhaps the strongest features, though fruit was exceptionally good in the Telegraph Operators' show. At the St. Martin's Society's show we were particularly pleased with a basket of flowers shown by a lady member. This was composed of crimson Roses, blue Hydrangeas and Ferns, and was almost equal to anything of its kind we have ever seen at the "National" shows in London.

The Wild Thyme as a Rockwork Plant.—Although the varieties of our common wild Thyme (Thymus Serpyllum) cannot be assigned a place among the choicest of subjects for the rockwork, yet some of the forms are very beautiful when grown in this way. The rich-coloured kinds, such as coccineus and splendens, are the more striking, but the white variety albus possesses a quiet beauty of its own, and affords a direct contrast to those of richer hues. To the beginner in rockwork planting, especially such as aim at effect rather than the rarity of the specimens, these Thymes can be recommended, as, under anything like favourable conditions, they are, given a sunny spot, sure to do well. Few plants will stand drought better. Again, for the taste which now prevails of forming paved walks and planting subjects of humble stature between the interstices of the stones, few plants are more fitted than Thymus Serpyllum and its varieties, as they will put up with a reasonable amount of treading on, and, when slightly crushed, their pleasing perfume is most pronounced.

Good Examples of Summer Bedding.—The gardens at Hampton Court have long been celebrated for the excellence of their summer bedding, as well as for the pleasing and unorthodox combinations, that are always to be found there. With so many striking examples to select from, and the fact that very few persons see eye to eye in such matters, it is difficult to select the very best, but the following appealed strongly to us, both from the point of beauty and novelty: (1) A groundwork of the white-striped *Holcus mollis variegata* and dwarf *Nigella*, over this good-flowered examples of *Verbena* Miss Willmott, while standing above all the rest were the feathery plumes of the lilac pink coloured *Astilbe Venus*, the whole being edged with *Echeveria secunda glauca*. (2) A carpet of the dazzling white *Calocephalus* (*Leucophyta*) *Brownii*, dotted over with tall plants of the same, and of the white variegated *Phlox Comtesse de Jarnac*, the entire bed being sprinkled over with the pretty double pink *Begonia* Major Hope. (3) A close groundwork of the white *Koeniga maritima*, over this *Begonia* Major Hope, with a few erect 2-feet plants of *Calocephalus* *Brownii*.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Pink Roamer.—We hear very little of the single wichuraiana Rose Pink Roamer nowadays, though it is more worth growing than some of the Roses of climbing habit which are being showered upon us. It has been in cultivation for a considerable number of years, and has proved a very satisfactory one for growing on pillars or walls, or up among the branches of trees. On a tall tree stump here it is very good this season, even finer than last year, and giving a great number of its deep pink, lighter-centred single flowers. Although single, these last considerably longer than might be expected, especially in a cool season. It is remarkably free in its growth, and soon makes long, pliant branches which lend themselves to any system of training required.—S. A., *Dumfries*.

The Day Lily.—This good, well-known plant, *Hemerocallis fulva*, is as yet unsurpassed in its own way, though we have had quite a number of newer *Hemerocallis* introduced since its time. Its tawny-coloured flowers look very handsome and showy, though not brilliant, when on a plant three feet or so across, and the constant succession of flowers makes it a most valuable border plant, though the individual blooms are somewhat short-lived, like those of the other species of *Hemerocallis*. In moderate soil it will attain a height of about four feet, and is then a striking ornament of the garden in late June or July. Some prefer the double flowers of the variety called Kwanso, and others, again, the form variegata, with variegated leaves; but I must confess to a distinct preference for *H. fulva* itself. It is sometimes called *H. disticha*, and appears to be a native of both Europe and Temperate Asia.—S. ARNOTT.

Lord Bacon and Gardens.—At the recent unveiling of the statue to this great philosopher, allusion was made to Gray's Inn Gardens, in which Bacon took much interest. The account-books of the Inn give items of expenditure and money laid out in 1598 for their arrangement. The gardens and walks remain about the same to-day, and Charles Lamb spoke of them as the "best gardens of any of the Inns of Court." Gardening art was beginning to assert itself, and geometrical designs were coming into fashion in the gardens at Nonsuch, Theobald's and Hampton Court. Bacon seemed to condemn this conventional arrangement and the making of "figures with divers coloured earths." Nonsuch was specially famed for its gardens and lawns. Broad terraced walks, long, varied banks and alleys of trellis-work diversified the prospect, and it is said Lord Bacon had this picture in view when he wrote his "Essays of Building and of Gardens." Little indeed remains of Nonsuch, once the fairy-like structure of Tudor days, wherein architectural art was employed in such a skilful manner that the palace became a byword for quaint and original beauty. Antiquarian interest has been lately revived in the excavations of the ground, which will possibly identify the site of some of the inner courts or the banquet-house. Wimbledon House (the home of the Cecils) was also famed for its gardens, and Henrietta Maria, Queen of Charles I., took great interest in the gardens. Trees from France were transported thither, and in later times John Evelyn, so great an authority on horticulture, was consulted as to the arrangement of the Wimbledon gardens. We still have evidence of the story of gardening from past days,

when the market-gardens of Bermondsey, Battersea and Fulham, places once associated with fruit and vegetable culture, were much used and frequented. It was a common thing in the early years of the nineteenth century for the gentry to drive out to Battersea Fields, where Melons, Mushrooms and Radishes could be bought, products for which the light soil and marshy land were favourable.—S. W. K.

The "Breaking" of English Iris.—I have for some years past been carefully growing on a very pretty mauve English Iris (*I. Xiphium*), which was an entire self without any suspicion of a splash of any darker shade. It appeared as a chance seedling, and I thought I had got hold of a prize. To my intense disgust, three out of my little stock of fifty have this year come "broken," as we say in Tulip lingo; that is to say, each of them is very much marked with pale rosy purple splashes, and the ground colour of the whole is of a decidedly darker shade. I have been in correspondence about it with my old friend, M. van Tubergen of Haarlem, and he tells me that "they all do it." This is news to me. I thought the peculiarity of breaking was confined to the Tulip. I have looked up *I. Xiphium* in Mr. W. R. Dykes' excellent little book on Irises in Present-Day Gardening, but he does not mention it. The dark garden forms which I happen to have do not seem to do it, nor yet the white Mont Blanc. Can anyone throw light upon this peculiarity?—J. J.

Showing Daffodils.—A word, please, Mr. Editor. I think your correspondents are a bit muddling things up. The late Lord Chamberlain once got up in the Commons and said, "I am not an agricultural labourer." I believe it tickled the House immensely. Now that is what a lot of show flowers say, and what a lot of garden flowers say. There are, of course, many mixomycetic ones (good hard word that, eh!) which are neither fish, flesh, fowl nor good red herring. They are lucky dogs, right either way. But a show flower is a show flower, and its first purpose in life is to be sent to shows; so with a garden flower, its prime object is to make an effect in the garden. They are two distinct things, and must be treated differently and thought of differently. This must happen directly a plant comes into the select circle of "florist flowers." It cannot be helped, although I know it is distressing to our-like-them-as-they-grow-naturally friends. All I am prepared to say now is that I do not think anything should be added to or attached to a flower when it is exposed on a show-board. The *débutante* does not go to Court with her curling-pins in her hair. When the National Daffodil Society comes into being, these things will be all straightened out, but not till then. At present Daffodildom is a community with no organisation and no leader.—J. JACOB.

— I should like to correct what is evidently a slip of the pen or a printer's error in "J. E. D.'s" letter on page 350. He says I admitted that I was "almost converted" to the little discs; I have done nothing of the sort. In the case I referred to on page 315 the disc was so cleverly placed that I was "almost deceived"; but converted, no, certainly not. "J. E. D." sounds the right note when he says that if we allow faking we encourage the wrong sort of flower and knowingly mislead (I would say "deceive") the public; and "A Gardener," I think, hits the right nail on the head when he suggests the reason for so few writing against faking is because there are too many exhibitors who have fallen to the temptation of just pressing out an Engleheartii cup that was not

quite flat enough, or coaxing a refractory petal into temporary flatness with a paper disc; and because I have few supporters among the exhibitors is the strongest of reasons why someone should voice the opinion of those who are not exhibitors. The public, once bit, will certainly be twice shy, and I trust that by thoroughly ventilating the subject in good time we may be able to prevail upon the various Daffodil societies to do all they can to encourage the honest flowers.—W. A. WATTS.

— Both Mr. Watts, page 338, and "J. E. D.," page 350, have assumed that my remarks had reference to "bad" and "feeble" flowers, though I never used those terms. I had in my mind what are normally good show varieties only. I used the term "artistic" faking with intention, for I do not consider it is "artistic" to leave a paper collar or support on the bloom once it is set up on the show-bench. It is not that it is "dishonest" (in spite of Mr. Watts), but merely inartistic; and, as far as my experience goes, the practice is safe to be penalised by the judges when used in competitive exhibiting. I cannot help thinking it is regrettable that Mr. Watts should use the term "dishonest" so freely in commenting on the practice of those who do not happen to agree with his own particular methods!—A SMALL EXHIBITOR.

The Double Standard in the Sweet Pea.—It would be interesting to learn from what point of view the National Sweet Pea Society regards the presence of the twin or duplicated upper petal to which the phrase "double standard" has been given. Judged by the numerous, almost sensational, disqualifications at the recent show from this cause alone, it would appear that it were regarded as a defect, something to be discouraged, were it not for the fact that in at least three classes such flowers were admissible—were, indeed, asked for by the society. Hence the point of view is not a little obscure. If, as some appear to imagine, this duplication of petals is wholly the outcome of excessive feeding, a stepping-stone to grossness and the spoliation—partial or otherwise—of a graceful and beautiful flower, then I think the majority of Sweet Pea lovers would back the society up in a rigid adherence to a condition—however sweeping and drastic that condition might be—in any endeavour to stem the tide of any such catastrophe. But the fact that this same duplication of upper petals is more or less prevalent in flowers grown in the poorest of soils, and is seen in sprays with not more than two flowers thereon, would appear to suggest that it is but a stage, a phase, in the evolution of a flower which has hitherto displayed a tendency to variability in its floral parts. Already the waved flower has become quite a craze, and has done not a little probably to create that greater popularity which the flower now enjoys. The coming of the duplicated standard may be but a move to more complete doubling of all the parts of the flower, and, if so, who can gauge the end? What saddened one most of all at the recent show was to see the finely-grown, well-displayed groups disqualified one by one, though it was some satisfaction at least to know that big men and little men—top-sawyers and pitmen—all suffered alike.—E. H. JENKINS. [We think the position of the National Sweet Pea Society over this matter is perfectly clear. The committee recognised that the double standard had come to stay, and provided three classes for it, but rigidly, and we think rightly, excluded it from the other classes. Whatever the merits or otherwise of the double standard may be, the judges were bound, on the terms of the schedule, to disqualify the exhibits they did.—ED.]

Rose Lady Gay for Towns.—I enclose herewith a photograph of the climbing Rose Lady Gay. It is grown on a wire arch, which it completely covers. I estimate that at the time of writing it is bearing about five hundred trusses of bloom, the rich cherry pink of which is relieved by the beautiful glossy foliage. The successful growth so near London should encourage the suburban amateur who desires such a form of garden decoration. — F. W. MILTON. [Unfortunately, the photograph was not suitable for reproduction.—ED.]

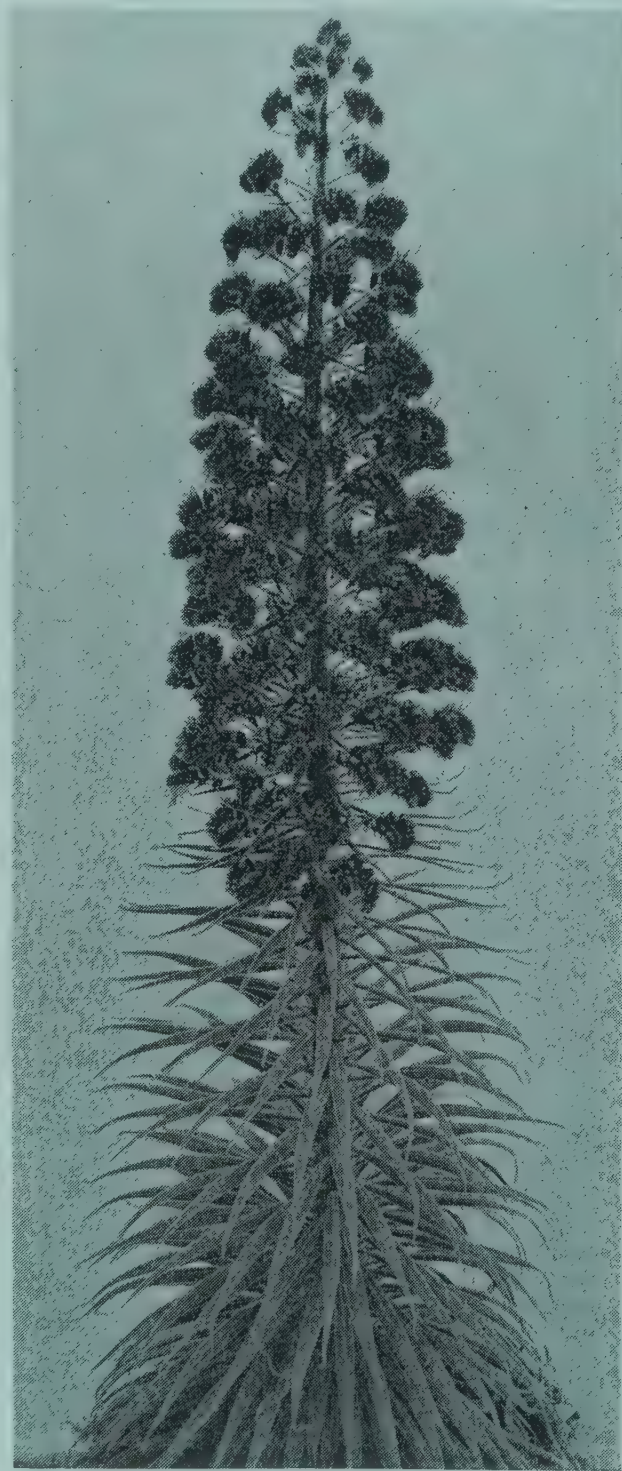
An Interesting Shrub (*Philesia buxifolia*).—This exquisite little shrub is frequently the despair of would-be cultivators without a cool house in which to grow it; but there are some who can, and do, succeed with it under other conditions. It is a success with some growers in the warmer parts of England and Ireland; but there are some who are equally successful with it in several parts of Scotland, always, however, with some precautions against severe weather. The writer knows of several Scottish gardens in which it is well grown with the protection of a hand-light, the top of the latter being taken off during most of the summer, but replaced for winter, with a little tilting in mild times. The best plant I have seen is in the garden of Mr. James Davidson, Summerville, Dumfries, where it fills the whole of a hand-light of medium size—about two feet square. It has been in the same place for several years and flowers with great freedom, giving an abundance of charming red Lapageria-like flowers, which look so well among the deep green leaves. At Summerville it is cultivated in a shady position, and in peat, loam and sand.—S. ARNOTT.

Echium Wildpretii.—I am sending a photograph of this handsome and striking-looking plant. It is a biennial and, like several other species of the same genus, a native of the Canary Islands, being originally raised from seed sent by Mr. Wildpret, Curator of the Botanic Gardens, Orotava, Teneriffe. Owing to the difficulty sometimes experienced in its cultivation, the following cultural notes may be of value: The seed is best sown during the months of July or August; it soon germinates. When large enough, the young seedlings should be pricked singly into $2\frac{1}{2}$ -inch pots. When the roots show through the compost they should be repotted into 3-inch or $4\frac{1}{2}$ -inch pots, according to the size of the plants, and they should pass the winter in pots of this size. At this stage they give little trouble if placed in a position well up to the glass, in a light pit, or on a greenhouse shelf. During winter they should be kept fairly dry at the root. On the turn of the year, if well rooted, they should be repotted into 6-inch or 7-inch pots, using a compost of good medium loam, with the addition of some leaf-soil, and plenty of coarse sand or old mortar rubble to keep the whole open. At this stage trouble generally starts, for, unless great care is exercised, each successive potting results in the loss of a few plants. They may be flowered in 6-inch pots; but if large specimens are required, they must be potted on into 8-inch pots. This should be done in time to get them well established before winter, as that is the most critical stage in their cultivation. At this stage they are striking objects, the plant consisting of a huge rosette of beautiful silvery grey leaves. During the second winter they require great attention to manage them successfully. As before, they should have a light, dry position, and no more water applied at the roots than is necessary to keep them from shrivelling. Early in the New

Year the stems begin to elongate, until, if everything has gone all right, they may attain a height of $2\frac{1}{2}$ feet to 4 feet, nearly half the length being composed of the flower-spike. When in flower, which is usually about the beginning of May, they are very handsome with their great spires of beautiful rosy red flowers. In spite of its beauty it is not likely to become a popular garden plant, except by the few who love to cultivate choice and difficult subjects.—J. C.

FORTHCOMING EVENTS.

July 23.—National Carnation and Picotee Show at Vincent Square. Brighton and Sussex Horticultural Show (two days).



A STATELY BUGLOSS (*ECHIMUM WILDPRETI*).

July 24.—Leamington Flower Show (two days) Normanby Flower Show (two days). Bishop's Waltham Flower Show. Royal Botanic Society's Meeting. Hayward's Heath Flower Show. Lyndhurst Flower Show. Feltham Flower Show.

July 25.—St. Ives (Hunts) Flower Show. Ramsgate Flower Show. Killarney Sweet Pea Show.

July 26.—Huddersfield Horticultural Show (two days). Cheadle Flower Show (two days).

July 27.—Fife and Kinross Flower Show.

THE GREENHOUSE.

EAST LOTHIAN STOCKS.

HOW TO GROW PLANTS IN POTS.

THESE are few plants that are quickly raised from seeds more satisfactory in every way than East Lothian Stocks grown in pots for the embellishment of the conservatory in springtime. Owners of comparatively cool conservatories or greenhouses cannot do better than raise a few seedlings for the purpose named. Four fine distinct colours may be obtained, and plants in 7-inch pots measuring nearly eighteen inches in diameter can be grown without difficulty. The fragrance is delightful, and the flowers last for a considerable time in a fresh condition. A fair percentage of double flowers may be had, but the single blossoms are equally fragrant and attractive. For grouping with other kinds of plants the singles are the most effective. They are generally the strongest plants, in the seedling stage especially, the doubles being dwarfer and of a more compact habit, and do not look as robust.

Sowing the Seeds.—Some cultivators sow the seeds in large pots, and do not transplant the resultant seedlings at all. This method I do not favour. I prefer to sow the seeds in a deep pan filled with nice loamy soil late in June or during July. The latter date is best for the South and the former date for the Northern Counties. The seedlings must be grown under quite cool conditions. Transplant them singly in 3-inch pots when they possess three or four rough leaves; use the soil in a medium state of moisture, and press it down a little with the fingers. Add a small quantity of old mortar rubble to the compost. The early transplanting will induce the formation of many fibrous roots, which is a great advantage. Do not allow the plants to become pot-bound, but repot them the moment a fair number of roots can be seen around the outside part of the ball of soil. At each repotting use the compost in a rougher state, and also make it firmer. Some plants will branch out naturally; others will require the main stem stopped. Keep the plants in a cool, airy frame until January, then transfer them to the greenhouse, and here again admit air to them freely on fine days. Feed the plants with plenty of diluted liquid manure directly the flower-spikes show.

AVON.

CALCEOLARIA BUTTERCUP.

THIS is a charming and graceful subject for the conservatory and cool greenhouse, attaining a height of $1\frac{1}{2}$ feet to 2 feet. It is derived from the intercrossing of *C. Clibranii* and *C. Golden Glory*, and was raised by Messrs. Veitch of Chelsea at their Langley nursery. As would be expected from such parents, the flowers are yellow, and from a batch of seedlings a variety of shades are obtained, some are beautifully spotted, especially on the under sides. It quickly attains flowering size, lasts in bloom for a long period, and makes a splendid decorative plant. Seeds should be now sown in well-drained pans, and placed where the sun cannot reach them, when germination will soon begin. As the seedlings become large enough to handle, each may be given a separate receptacle, and should be potted on as required till they reach the flowering size, viz., pots 7 inches in diameter. A suitable rooting medium consists of fibrous loam three parts, and well-decayed leaf-mould one part. Grow on in cold frames, keep a sharp look-out for green fly,



POTENTILLA ALBA, A FREE-FLOWERING PLANT FOR THE ROCK GARDEN.

and never allow them to suffer from drought, when a healthy batch of plants rather out of the common run will be the result. S.

THE ROCK AND WATER GARDEN.

POTENTILLA ALBA.

IN the large Cinquefoil family there are many beautiful plants suitable either for the herbaceous border, like *P. argrophylla* and its numerous forms, or for the rock garden. For the latter purpose there are several choice dwarf-growing species that are very useful and ornamental. Among the latter may be included *P. alba*, which is here illustrated growing on a ledge and flowering freely during the month of April. Its home is in the Alps and Pyrenees, and it is a very attractive plant, with silvery leaves having a silky down on the lower sides. Very dwarf and not too rampant, the white, Strawberry-like flowers each about an inch in diameter, with a dark orange ring at the base of the petals, are freely produced. Somewhat resembling the above is the Pyrenean *P. alchemilloides*, with narrower leaflets, also covered with silky hairs on the under side of the leaf. It grows slightly taller and has rather smaller flowers, but produced in greater profusion. Among the yellow-flowered kinds, one of the freest is *P. nevadensis*, which barely reaches a height of 2 inches or 3 inches. It is a very compact-growing plant, with small, hairy leaves if planted in poor, sandy soil; but if put in richer ground it readily responds, and the flowering branches elongate to a greater extent. As a plant for growing in pans it is very useful for the alpine-house, producing plenty of flowers over a long period. Another pretty little plant is the European *P. aurea*; but the Himalayan form, *P. aurea* variety *ambigua*, has much larger, clear

yellow flowers on a dense carpet of foliage. All the foregoing are among the easiest of plants to grow, succeeding well in any sunny, well-drained position or on a rocky ledge. They all produce seed, by means of which they can be increased, as well as by division. Besides the plants mentioned there are numerous others, like *P. nitida*, which come into flower rather later.

LITHOSPERMUM PROSTRATUM CÆRULEUM.

ONE of the most popular inhabitants of the rock garden, *L. prostratum*, is a general favourite with all. Forming a spreading carpet of intermingled twiggy branches, clothed with evergreen foliage, it is a valuable plant for either the border or the rock garden. Planted on a rocky ledge, the shoots may be allowed to fall down the sunny face of the rock, thus forming a curtain of dark green, studded in spring with beautiful rich gentian blue flowers. For wall gardening it is an ideal plant, soon forming large hanging tufts of great beauty. As a pot plant it is charming, doing well in pans, and helps

to furnish the alpine-house, making quite an attractive feature. It is not particular as to soil, although it enjoys a good depth of light, rich loamy soil with plenty of humus in it. Although it is said not to like lime in any form, I have seen a large plant quite happy for many years in a bank mainly composed of limestone and mortar rubbish. *L. prostratum*, however, dislikes transplanting when of any size, and takes a long time to recover, so that it is always best to start with young plants and await their development. The plant illustrated, *L. prostratum cæruleum*, has flowers of a lovely pale blue colour, and is also well known under the name of Heavenly Blue. It is a charming companion for the type where both can be grown; but in some gardens the dark blue succeeds best where the light one fails, while in other gardens, again, the reverse is the case. Both may be propagated by means of cuttings in summer, selecting the short young growths with a heel and putting them in sandy loam in a close frame. W. I.

TREES AND SHRUBS.

THREE BEAUTIFUL SHRUBS.

A Useful Mock Orange.—In early summer we are accustomed to seeing many of the Mock Oranges in flower, lading our shrubberies with their wealth of flower and perfume. *Philadelphus grandiflorus floribundus* is a variety which for freedom of flowering and size of flower would be difficult to excel. It forms a symmetrical bush, throwing up straight, strong growths, from which next year's flowers will be issued, and perhaps their vigour will be more clearly understood when I state that many of the leaves, which are cordate in shape, are over seven inches long by 5 inches in width, necessitating the shortening back of the more vigorous ones to expose more clearly the sprays of blossom so freely produced. These measure from 8 inches to 12 inches long, and average as many blossoms, produced in pairs, each flower being opposite the other. The blossoms are pure white, slightly cup-shaped, single in form, with a bunch of golden anthers in the centre, and measure over two inches in diameter. The flowers are slightly scented, quite sufficiently so to make them agreeable.



A BLUE-FLOWERED ROCK PLANT, LITHOSPERMUM PROSTRATUM CÆRULEUM.

Escallonia langleyensis.—What a delightful shrub this is at the present season, whether seen as a bush specimen in the shrubberies or loosely trained to a wall or balustrade, where the countless flowers are portrayed to the fullest and best advantage. Though not large, the individual blooms are, nevertheless, remarkably showy, being of a rich shade of red, which contrasts with the shining foliage. Apart from its special characteristic, it makes one of our handsomest evergreens at other seasons of the year, and is quite hardy. It deserves planting freely. It is the result of a cross between *Escallonia macrantha*, a species with evergreen foliage and crimson-coloured flowers, and *E. philippiana*, a deciduous species with white flowers, and also wonderfully free and showy, though the flowers are not nearly so large as those of the hybrid.

Helianthemum formosum.—The mere mention of the name *Helianthemums* or their ally *Cistus* is sufficient proof of the beauty of the plant, and a collection of these forms one of the most interesting features in the hardy flower garden. That some are none too hardy I am well aware; still, they are readily increased by cuttings, and a few may always be held in reserve. The one above is now making a brilliant display and is flowering profusely, both planted among the stones beside the garden path, and in the fore part of the shrubberies, the numerous yellow flowers with the dark, almost pure black, blotch at the base of each petal rendering it most attractive. When planting any of the numerous varieties, a sunny, open site should always be chosen, which, with an open, porous soil, will suit their requirements to a nicety. E. BECKETT.

ROSE GARDEN.

NEW ROSES AT THE "NATIONAL" SHOW.

A usual, great interest was centred in the tent set apart for new seedling Roses at the National Show held last week, and it must be admitted that some very beautiful novelties were staged. Messrs. Cocker and Sons of Aberdeen unanimously obtained a gold medal for

Mrs. Andrew Carnegie, a most superb bloom, which some of the judges felt deserved a special award, apart from the blue ribbon of the Rose world. It is a seedling from Frau Karl Druschki, crossed with the old Rose *Niphetos*, and never at its best have I seen *Niphetos* with larger petals. The colour is the palest lemon white imaginable and the formation of the greatest beauty, with a fine globular centre and huge outer petals. Another gold medal was awarded to

Old Gold, a wonderfully coloured flower of the form of Mrs. Alfred Tate, but with the intense colouring of the *Eschscholtzia*, with more scarlet orange even than that. This lovely Rose was raised

by Messrs. S. McGredy and Son, Newtownards. When this variety and Mme. E. Herriot are on the market, our gardens will receive two lovely gems from a colour point of view.

No fewer than nine silver-gilt medals were awarded, one each to the following varieties:

Mrs. C. Reed, shown by Messrs. Lowe and Shawyer. It is a flower of the style of Clara Watson, but evidently of stouter build, and with a lemon-like shading.

Queen Mary is a really lovely and quite unique colour. If one can recall the old Rose *Luciole*, it may best describe it to say it has many of the charms of that variety, but the buttercup yellow shading gives it a most wonderful hue, and I should not be surprised to find it in the front rank of decorative Roses. This fine variety was from Messrs. A. Dickson and Sons, Newtownards.



ROSE MRS. ANDREW CARNEGIE, AWARDED A GOLD MEDAL AT THE NATIONAL ROSE SOCIETY'S SHOW.

Sunburst was not shown as large as it will come outdoors. The writer has had it of large size and superb form upon outdoor plants, and if it could have been put up in that form it would have gained a gold medal. It is a Rose that everyone must possess, and is one of the most lasting flowers I know of. I am certain it will prove to be one of M. Pernet-Ducher's best, and that is saying a good deal.

Mrs. Edith Part, from Messrs. McGredy and Son, is another remarkable colour, something of the tint of a highly-coloured *Beauté Inconstante* blended with Lady Pirrie. The colourings of the new Roses are so marvellous that it is only by comparing them in this way that one can describe them. The bloom is a nice solid flower, quite waxy in appearance.

Mrs. C. D. Hunting, from Messrs. Hugh Dickson, Belfast, is a fine Rose. Perhaps to say it comes between Arthur R. Goodwin and Mme. Ravary would well describe it. Its petals are very firm, and it promises to be a good bloom to stand wet.

William Cooper, also from Messrs. Hugh Dickson, is a fine flower, but rather lacking in colour. Perhaps it is nearest to Marquise Litta, but with an orange hue.

Mrs. R. D. McClure, also from Messrs. Hugh Dickson, is a very pleasing shade of pink, like a salmon Lady Ashtown, and it looks as though it would hold up its head better.

Lady Mary Ward, from Messrs. McGredy and Son, is a real gem, of the type of Duchess of Wellington, but with a deeper orange tint.

Mrs. Fred Vanderbilt, also from the same raisers, is another fine bit of colour, reminding one of Sunrise, but in form more like Countess of Gosford.

A silver medal was awarded to

Moonlight, one of the perpetual-flowering moschata Roses, which its raiser, the Rev. J. Pemberton, is giving us. They will be very beautiful garden varieties. It is like a pale Trier. Another one from the same raiser, named Dinah, is a pretty pink variety, and this gained a card of commendation. A similar award was given to Coronation, a very fine Hybrid Perpetual Rose, of superb form, and of a soft satin pink shade—this was from Messrs. Hugh Dickson; also to Mrs. E. Alford, which some thought deserved a higher honour. It is a fine big flower, in the way of Mme. Abel Chatenay, but larger. This was shown by Messrs. Lowe and Shawyer.

ROSES AS FREE BUSHES.

THE average reader of THE GARDEN cannot be aware that many of our best Roses may be grown as big bushes, or we should more frequently find them in gardens. Take, for instance, Hugh Dickson. How often do we find this grand Rose growing in a bed with such as Caroline Testout and Mrs. John Laing, totally usurping all the space by its long, straggling branches; but given a small bed to itself and its growths left long at

pruning-time, we should have an abundance of its glorious crimson blooms to adorn our gardens. The same may be said of Gustave Regis. During a recent visit to Downside, Leatherhead, I saw a fine bed of this good Rose growing as big bushes nearly four feet high, and each bush a mass of bloom. W. A. Richardson is another Rose that may be so grown; and, indeed, many of the climbing Teas and Noisettes are a great success cultivated as free bushes. I have Bouquet d'Or, Reine Marie Henriette, Zepherin Drouhin, Avoca, Sarah Bernhardt and others growing as bushes some three feet to five feet high, and bushy as well, and they are a great success. Lina Schmidt-Michel is a beauty for this purpose; its huge semi-double flowers of Mme. Abel Chatenay colouring

are a joy to behold. I like to see some of these free-growing Roses in the centre of beds of bushes of the same colour, and I think it will soon be the recognised thing to plant the climbing sports of various Roses among the bush plants of the same variety; for instance, Climbing Lady Ashtown among bushes of the same, and also Climbing Liberty and Climbing Richmond. As a support three stout canes in the form of a tripod would be suitable, and one could plant three plants to each tripod. This arrangement would be a change from the use of standards as dot plants among bushes.

SPORTS OF ROSE KILLARNEY.

THIS good old Rose is behaving in a remarkable manner, for it is throwing off quite a number of

enlighten us as to its parentage, this might help us to solve the mystery. Anyway, the two recent sports should be obtained as soon as possible, because I should say they are going to be very useful.

ROSES AT KEW.

A FEW weeks ago we published an illustrated article on the Rose Dell at Kew, calling attention to the Ayrshire, multiflora and other Roses, many of which are now passing over. In this beautiful dell Roses are allowed to ramble almost at will over rustic logs and poles, and, needless to add, they flower in wild profusion. Helene, Tausendschön and Jersey Beauty have been wonderfully free-flowering this year. While the beauty of the Rose Dell has more or less departed for this season,

producing a quantity of exquisite flowers, while Lady Ashtown, Joseph Lowe and Mildred Grant are worthy of special mention as bedding varieties. A large bed of Clio is now a perfect mass of blush pink flowers. With this variety, as with Frau Karl Druschki, which is also very fine, the long branches have been pegged down, and the side shoots from these maintain a quantity of bloom over a long period.

The pergola at Kew, of which we give an illustration, is aglow with colour, as it has been for some weeks past. Hiawatha and Lady Gay are remarkably good, and the trusses of bloom now hang down from the iron chains of the pergola in great profusion. Near to the Iris garden may be seen arches of Dorothy Perkins and its white variety, the two together making a most charming picture.

American Pillar and Dorothy Perkins are now at their best over the archways leading from the pergola to the herbaceous garden.

It would not be fitting to bring these notes to a conclusion without reference to the very effective display that has been created by planting rambling Roses near the water-side in the front of the Palm House. The varieties Dorothy Perkins and Lady Gay, now smothered with bloom, are drooping over the masonry, and the glory of the flowers is reflected in the placid water beneath.

ROSE SARAH BERNHARDT.

I HAVE before me as I write one of the most superbly-coloured Roses I have ever seen. It is a perfect bloom of Sarah Bernhardt, and I have been wishing that it were a little more double, for then surely Liberty and all the other scarlet-crimsons would be superseded. This particular flower has a perfect pointed centre like a cone, induced to come thus perfect by the glorious "Rosey" dripping weather previous to the time of writing.

I would advise everyone to grow this Rose, and not to be disappointed at its big semi-double blooms,

if one like the bloom I have been obtained occasionally. It is semi-climbing in growth, which, perhaps, is another bad feature; but if planted out and the growths left long when pruning, it affords a glorious bit of colour, far surpassing Roses of the Maharajah type, and as a standard it is superb. I had not observed its fragrance before, but it is not unlike that of ripe Raspberries. P.

THE FRUIT GARDEN.

SOME GOOD STRAWBERRIES.

THE coloured cover of this issue represents some comparatively new and good varieties of Strawberries, and as the time for planting is now at hand, we commend these to the notice of our readers. The one at the top of the cover is Laxton's Cropper, a variety that was introduced by the firm whose name it bears in 1907. It is a midseason variety, the fruits being large and of excellent quality. They are also firm, and consequently travel well. On the left-hand side we have another fine Strawberry, named The Bedford. This, too, is a midseason variety, and was raised by crossing Dr.



A BED OF ROSE LA TOSCA AT KEW.

sports. Last year our American friends obtained a more double form, which they called the Double Pink Killarney. Now, the latest are a dark pink Killarney and a double white Killarney. Both of these are finding much favour on the other side of the Atlantic, one grower alone planting out under glass no fewer than 10,000 of each. The double white Killarney will, I think, interest us more over here, for it will be invaluable in a show-box with its exquisite form to add to its beauty.

It seems to one beyond question that the growing of Roses in huge quantities under artificial conditions tends to the sportiveness of a Rose. A case in point was the old variety Catherine Mermet, which has given The Bride, Bridesmaid and Muriel Grahame.

Would the propagating from cuttings have anything to do with creating these sports, or is it the artificial heat? Or is it explainable on Mendelian lines? In any case, it seems strange that several sports should follow in quick succession from Killarney, for the original variety has been in commerce now some fourteen years, and yet it is only lately it has taken to this sportiveness. If Messrs. A. Dickson and Sons would

there are numerous beds of standard and bush Roses, notably in the formal beds surrounding the Palm House, now to be seen in the height of perfection. That grand Rose Caroline Testout, which still retains its proud position as the best Rose for a town garden, is perhaps the best of all Roses at Kew at the present time. Grown in large beds, both as bush and standard, it is now rendering a really good account of its flowering propensities. La Tosca, a charming variety, is flowering in great profusion, as may be seen from the illustration on this page, and in a bed immediately opposite, the Lyon Rose is bearing a profusion of blooms; these, however, are a shade disappointing in tone of colour. There is also a good bed of the Lyon Rose in standard form, and another of Florence Pemberton, each with a carpet of Mignonette, which unquestionably enhances the beauty of the standard Roses. Grace Darling is not quite up to its usual good form, and La France, for some unknown reason, has apparently fallen into obscurity. Mme. Ravary, although not so prolific as some, is, nevertheless, very attractive on account of the beauty of its individual blooms. A bed of shapely bushes of Duchess of Wellington is now

Hogg and Sir Charles Napier, both good Strawberries. The Bedford possesses the fine flavour of Dr. Hogg and the good colour of Sir Charles Napier. It is a very robust-growing sort and a heavy cropper, and, as will be seen by the illustration, produces large and handsome fruits. The variety on the right is Laxton's Epicure, one of the best flavoured Strawberries ever raised. This is not to be wondered at when we know that British Queen and Fillbasket were its parents. Indeed, in flavour it is almost identical with British Queen, and its habit and cropping qualities similar to those of Fillbasket. Strawberries planted between now and the end of August will give good crops of fruit next year, provided the soil is well dug and manured, but the earlier they are got in the better.

THE FLOWER GARDEN.

THE SCOTCH ROCKET.

(HESPERIS MATRONALIS FLORE PLENO.)

THIS, one of our very choicest hardy plants, is in danger of dying out, as so few growers seem to know anything regarding its wants. To entirely lose this fine plant would be a calamity indeed, and every effort should be made

to increase the stock all over the country. I have known and cultivated these Rockets for many years, and find very little difficulty in keeping up a good stock. At the same time, disaster may overtake anyone if they neglect the plants for even one season. I have experimented for years with this plant, and while several plans are fairly satisfactory, I have proved over and over again that propagation by cuttings is by far the best method of raising a healthy stock.

How to Proceed.—As soon as the flowers fade, or earlier if they are wanted for room decoration, cut down the stalks to 3 inches or 4 inches from the ground. Loosen the soil all round the plants with a Dutch hoe, and if the weather is dry give an occasional soaking of water. Encourage fresh, sturdy growths by these and other means that may occur to the cultivator, for it is important to secure growths of fair size by the beginning of September. Of course, after one has obtained a fair stock, the best method for securing cuttings is to plant out a few of the strongest young plants in the reserve garden in spring, and as soon as the flower-stems rise cut them close back, and thus ensure plenty of early cuttings. As soon as the growths are large enough to make into cuttings, take them off with a knife, securing, if possible, a heel to each. Trim slightly in the usual way, and then insert in pots or boxes of light, sandy soil, taking care to keep the centres of the cuttings free of soil. Even the best of cuttings are usually rather short, so a good deal of care is necessary to secure them properly in the soil. I have heard of enthusiasts who tied each cutting to a small stake before inserting, as by this means the cuttings were kept steady until roots were formed. Personally, I have never tried this, but with very short cuttings I can appreciate the advantage of the method.

Treatment of Planted Cuttings.—Having inserted all the available cuttings, give a gentle watering and set in a cold frame. Keep close and shaded for ten days or so, and then gradually admit a little air, as the Rocket detests being coddled, and the leaves will most likely damp off if kept unduly close. The giving of abundance of air on every suitable occasion during late autumn, winter and spring, and a frequent removal of all dead foliage, are all that is necessary during that time. The removal of the dead leaves requires considerable care, as these do not readily leave the little plants, and if roughly handled the cuttings will be loosened, or even the tender roots destroyed at a later period. By the beginning of March the plants should be ready to be hardened off, and should then be planted out in fairly rich and well-tilled soil in a sunny situation. Soil of medium to heavy texture best suits this plant. I should perhaps have said that while boxes are suitable for the cuttings, I have always had the greatest success by using pots. A really good, strong cutting may be given a 3-inch pot, and smaller ones may be inserted round the edges of 4-inch or 5-inch pots, three to five in each. In February pot off singly those raised in boxes into 3-inch pots or round the edges of larger ones.

Other Methods.—In late seasons, or in extra dry summers, the growths made are frequently

the plants in autumn or spring, planting directly where they are to bloom, but this is by no means a safe plan. If the first two methods I have explained are carried out each season, one may always rely on having abundance of this fine plant to bloom during May and June. The true Scotch Rocket grows from 18 inches to 24 inches high, and must not be confounded with the tall French variety, although this also is quite worthy of a place in a large herbaceous border. It is by no means so difficult to manage, and may be broken up and replanted like the majority of hardy plants. The Scotch Rockets are nearly pure white, and have beautiful Stock-like, fragrant spikes of flower. There is also a fine lilac pink sort, almost as desirable as the white. The latter is slightly taller, but blooms at the same time.

Preston House, Linlithgow.

C. BLAIR.

SWEET PEA NOTES.

The Great Show.—Although these notes will not appear in *THE GARDEN* for several days after the National Society has held its great annual exhibition, I am forced to write them many days in advance of the date. During the past few weeks I have had the pleasure of seeing a few thousands of plants in different places, and I have no hesitation in concluding that the present show will be



THE ROSE PERGOLA AT KEW, LOOKING FROM THE SOUTH END.

much too short for cuttings, so the plants should be carefully dug up early in September and divided with a sharp knife. Each crown with a few roots attached will make a plant if placed in a 3-inch pot; but if two or three crowns can be retained on each piece and given a 4-inch or 5-inch pot, far finer plants will be secured for next season's blooming. After potting place in a cold frame, and keep close and shaded for a few days. Subsequent treatment is identical with that already advised for cuttings. Still another way is to lift and divide

as good as any of its predecessors, and better than some of them. The flowers are of excellent size, substance and colour, and, artistically staged, will create a magnificent display, or they will do so unless hideous boards are down the middle of each stage, as I am led to believe was decided at a recent committee meeting. Our show has been the most beautiful of all, but such an addition will, I fear, completely spoil it.

Double Standards.—There is one thing that worries me considerably in regard to the show, and

that is the remarkable number of flowers which are throwing double standards. In the schedule for this year there is a rule under which double standards will disqualify any exhibit other than in three classes which are specified. This will involve the judges in the task of closely examining every bloom throughout each stand. This is by no means a light task, and there are some judges who will positively refuse to do it. And small blame to them. Disqualification must be done at times, as all experienced adjudicators know, but it is not a pleasant thing, and to inscribe the dread word on an exhibitor's card because he has one flower out of 300, or even more, in a stand is too terrible to contemplate. Personally, I am opposed to double standards, but that does not alter the fact that several hundreds of people appreciate them; neither does it the second fact, that a few blooms with double standards in a bunch make it conspicuously handsome. The trouble lies in that the double standard may not show itself, even to the most critical eye, until the exhibit is staged and the hall is cleared for the judges. Must the exhibitor be penalised for an error which he could not possibly prevent? Were he to put half the stems up with double standard flowers, the case would be altered, but the odd one is a dangerous thing, and will almost assuredly appear. I can remember the day when every exhibitor was disqualified in one of the most important classes at the "National" because two or three fiery individuals yearned to slaughter me. One of the disappointed ones had one spike too many in about two hundred and fifty. Would anyone suggest that that solitary spike was added to improve the group? Not a bit of it; but the rule said twenty, and no earthly body could make that either nineteen or twenty-one. Let us hope that there will be no such catastrophe with double standards. If there is, the society will require a new secretary, for Mr. Curtis will certainly be assassinated. The temper of the exhibitors at the "National" shows is not as sweet as it was in my day!

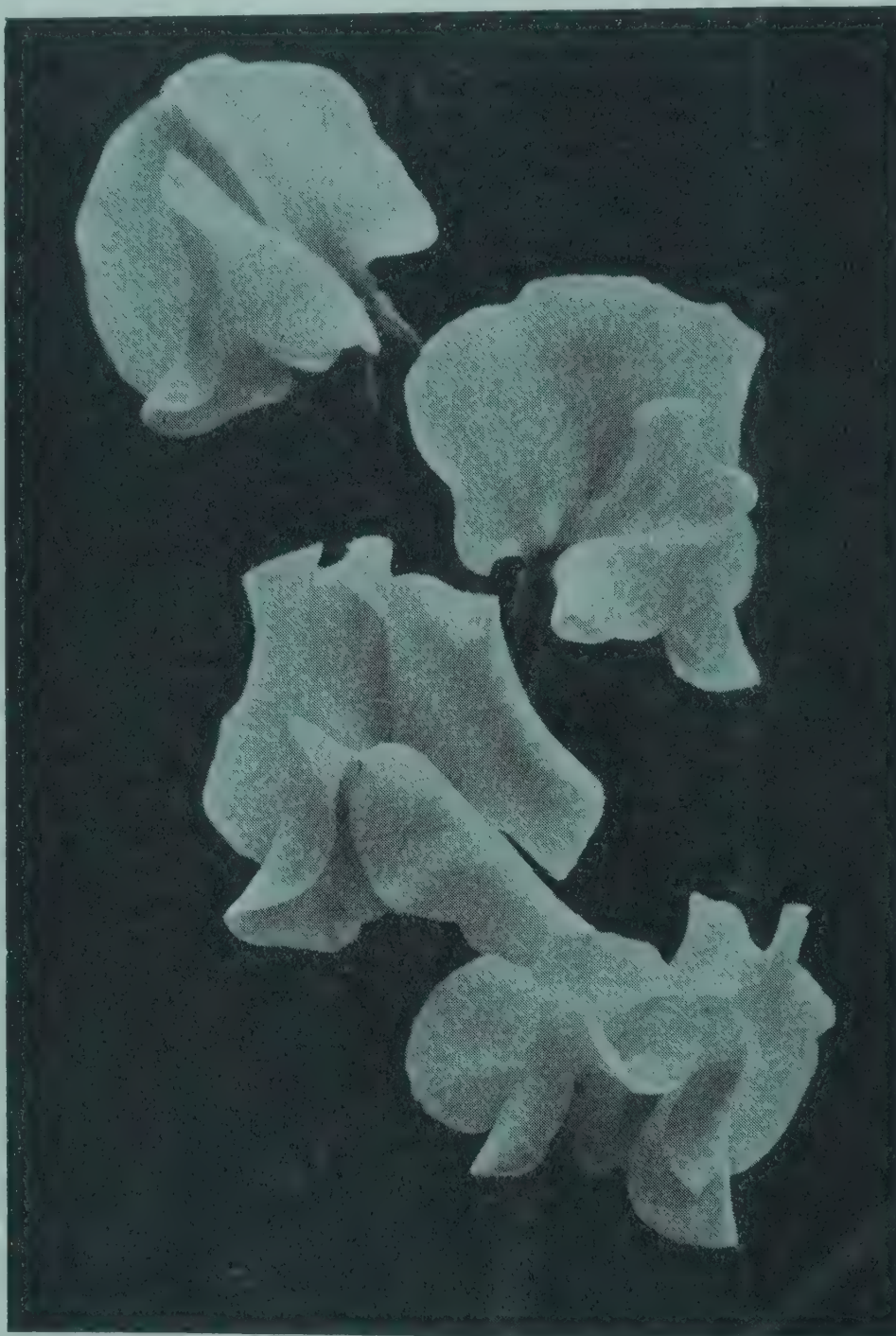
Club Judges. — In the dog world and the poultry world the "club judge" is an institution of the utmost importance, and I am of opinion that it would be an excellent thing if we could import the idea into the Sweet Pea world. It is clear from the awards made at some local shows that the impressions of some judges as to what constitutes a good Sweet Pea are weird, to put it mildly. The National Sweet Pea Society has now upwards of one hundred societies in affiliation, and for the benefit of these the desirability of drawing up a list of official judges cannot be questioned. The awards would then be made on a recognised approved basis in all parts of the country. One obstacle is that floricultural societies are not overburdened with cash, and they cannot always afford

to pay a competent man a fair wage for a fair day's work; but this I do not regard as insurmountable. It is not usually the fee which causes trouble, but the expenses, which rise to a respectable sum when one has to travel a few hundred miles and spend at least one night in an hotel. There are, however, scores of capable men in the country who could be retained at a reasonable fee, and who would not have to travel far.

HORACE J. WRIGHT.

SWEET PEA LADY MILLER.

AMONG Sweet Peas of recent introduction, this variety must take a foremost place. It is exceed-



SWEET PEA LADY MILLER.

ingly vigorous, flowers freely, and the blossoms are beautifully waved. It belongs to the cream pink section, the two colours being very delicately blended. Although there are now several good varieties in this colour section, all are very beautiful, and we cannot well have too many of them. When cut and bunched Lady Miller is particularly charming, and it is also very beautiful in the garden. If a census of Sweet Peas for colour were taken, we think those of cream and pink hues would be well on top. It was raised by Mr. A. Malcolm, and has been shown by Messrs. Dobbie in very good condition this year.

THE KITCHEN GARDEN.

FRENCH SUGAR PEAS.

IT is often remarked that we want more variety in vegetables, and this can be met by growing kinds that seem but little known. For instance, the French Sugar Peas are excellent when cooked whole, providing the pods are young and well grown. Last summer, being hot and dry, was very trying to the ordinary Pea crop in light soils, whereas the Sugar Pea was excellent. Of course, I would only advise its culture in a private garden,

and even then only where variety or change of vegetables is desired, as it cannot be classed as a profitable vegetable. Being so little known or grown, it is not looked upon with great favour, yet it is an excellent summer vegetable in season from July to September. In poor land no lack of good food should be allowed at the roots. The soil must be deeply trenched and the plants given sufficient space to grow freely. The variety Mangetout may be classed as a medium grower. Last summer it did not attain a height of 3 feet, though in a wet season I have had it nearly 4 feet. W.

NEW VARIETIES OF ASPARAGUS.

THOUGH most vegetables during the past quarter of a century have made wonderful strides, Asparagus has been almost stationary, so far as the introduction of new varieties is concerned. On the other hand, there has been great progress in its cultivation, and this is now more easy and profitable than it was some years ago. It may be well, however, to draw attention to a few new varieties. Objection may be made to this, as some may think it is desirable to grow the older sorts as well as possible, and in a certain sense I agree. On the other hand, I certainly think by the introduction of new blood we may get good results in the way of size, yield and earliness.

At the Royal Horticultural Society's Gardens at Wisley during last year some most interesting trials of Asparagus took place. But as all growers of this vegetable know, one, or even two, seasons

trials will not be sufficient to prove conclusively any sorts as new or distinct. Although I believe the new varieties referred to were only two years old, there was a marked difference in the yield and size of growth over older sorts grown under similar conditions, so that there is great promise that the newer forms will prove superior and be valuable additions to a vegetable which almost everyone likes, and which is none too plentiful. For instance, an earlier variety will prove of great value, as when Asparagus comes in there is a scarcity of good vegetables. Some of the varieties under the name of Early Giant were greatly superior to the older sorts.

G. WYTHES.

GARDENING FOR BEGINNERS.

THE LAYERING OF BORDER CARNATIONS.

THE border Carnations—that is, those which flower in the open ground during the summer months, are propagated by means of layers, and this is the time of the year in which to carry out the work. A few appliances are needed in order that the layering may be properly done, namely, a sharp, small-bladed knife, some pegs to secure the layers in their place, a small hand-fork to loosen the soil around the plants previous to layering, and a pad of some kind on which to kneel, for it is very necessary to come in close contact with Mother Earth. Carnation-pegs are sold for the purpose, but any piece of bent wire may be made to answer, besides which pegs may be cut from the stalks of Bracken or an old Birch broom. Long hairpins may also be used. Some good sandy soil passed through a sieve with a quarter-inch mesh is also required. This must be worked around the layer when it is fixed in position, and thus forms the medium into which the first roots are pushed.

How to do the Work.—All being ready, the actual layering may now commence. In the first place, the soil around the plant should be lightly forked up to a depth of a couple of inches or thereabouts; then take the shoot which is to form the layer, and with a downward pull remove any leaves from the lower part of the stem, as is shown in the accompanying illustration of a layered and rooted shoot. If the leaves are too firmly fixed, a sharp pair of scissors may be used. Then take the shoot in the left hand so that the bottom portion is uppermost, and support the stem with the forefinger. This will prevent any danger of the shoot snapping off when the cut is being made, and also enable the operator to regulate the extent to which the knife penetrates. It must be inserted about halfway through the stem immediately below a joint, and carried upwards to the next joint. If this is properly done and the shoot pegged down correctly, the separated portion of the stem assumes the character of a tongue or heel, and it is from this part that the roots are produced, as shown in the illustration. It is most essential that the cut remains open, otherwise the wound will heal without rooting, or do so only in an imperfect manner. Much might be written on the subject without conveying as clear an idea as a glance at the illustration. It is very important that the layered shoots are not too young and succulent, otherwise they are liable to snap, and much the same may happen if they are allowed to get too old and woody. Care should be taken not to crowd too many layers around a single plant, as it must be remembered that they will make more growth before they are fit to be separated from the parent, and consequently they will become weakened by crowding. Varieties of loose growth may have more layers put down than those with sturdy, compact shoots. When layering is completed, the soil should have a good watering through a fine rose in order to settle everything in its place, and

it is very essential that after this the soil is never allowed to get dry. Apart from this, an occasional overlooking to see that the layers are not loosened in any way, and also to keep free from weeds, are all that is needed till they are sufficiently rooted to be separated from the parent plant.

Treatment of Rooted Layers.—By the end of September the plants should be rooted sufficiently for them to be cut off, and then either planted into their permanent quarters or put into 4-inch pots, as in some districts they are frequently wintered in a cold frame. In cutting off the layers from the parent plant, a certain amount of care is very necessary. A sharp knife is required, and the buried portion of the stem should be cut by a downward thrust, as, if an upward cut is made, the stem is liable to break. Then with a trowel carefully lift the rooted layer, and shorten back the old stem

the advantage of a good top-dressing if applied to a lawn at once. The new soil will fill up all hollows and closely surround the roots of the grasses, and the latter will soon take possession of the additional loam and become stronger and more likely to pass through a severe winter safely. If closely examined, it will be clearly seen how bare of soil lawn grasses are at the present time.

The new compost should be of a gritty nature, and made moderately rich by adding some well-rotted manure. Pass all the ingredients through a three-quarter-inch mesh sieve and spread the mixture on evenly. Brush it to and fro, so as to gently work down the particles of soil, and then roll the lawn. So treated, the compost will not show on the surface, while at the same time it will be doing a vast amount of good to the lawn.



A CARNATION SHOOT THAT HAS BEEN PROPERLY LAYERED AND MADE ROOTS.

if it is too long. Whether planted in the open ground or potted, the young plants should have their roots exposed to the air for as short a time as possible, for the delicate fibres are very quickly injured. It is very necessary that the planting be firmly carried out, and, should the young plants be lifted by frost, it is most essential that they are again pressed into position as soon as it can be safely done.

H. P.

LAWNS AND DRY WEATHER.

ALTHOUGH many lawns have suffered a great deal owing to absence of rain and the excessive heat, it will surprise many persons when they see the rapid recovery some lawns will make. In numerous instances I find old, coarse grasses killed and others lessened in vigour considerably. No time should be lost now in raking off browned moss and faded coarse grass, and after the rake has been used to good purpose, follow with a half-worn path broom and brush up as much more as possible. Some crumbled soil will also be collected, but it is a very easy matter to replace it with fresh loam. This brings me to the main point in this note, namely,

HOW TO GROW PETUNIAS.

MANY amateurs fail to recognise the great usefulness of these plants for the furnishing of the cool greenhouse during the summer months. The single-flowered varieties are in the foremost ranks as bedding-out subjects, especially in dry gardens; the double-flowered ones are not so successful, but in pots they are. Some greenhouses are built in hot, sunny corners, and they are ideal structures in which to grow spring-flowering plants; but during the summer-time they are too hot and dry for all except a few kinds, and among the latter Petunias and Zonal Pelargoniums may be regarded as equally suitable. For the hottest houses preference should be given to single-flowered Petunias, then Zonals and the double-flowered Petunias, respectively.

Potting Petunias.—These require shifting three times from the rooted cutting, or seedling, stage to the flowering—first into 3-inch pots, then to 5½-inch pots, and, finally, to the flowering ones, those 7 inches in diameter. The same kind of compost must be used throughout, but finer in condition at the first than the two final pottings, viz., fibrous loam, two parts; leaf-soil, one part; rotted manure, one part; with sufficient coarse sand to render it all porous. To one bushel of the above combined parts add a 7-inch potful of old mortar-rubble. When the young plants are 6 inches high, pinch off the tops and thus cause side shoots to grow. A few plants may be left at this, as they will flower early; but others should be pinched twice. Then they will be later in flowering and so form a succession.

If a frame is available, the plants should be grown in it up to the time the flower-buds show prominently. Directly the plants are well rooted in their flowering pots, commence to feed them judiciously; later, weak doses of manure-water and artificial manures may be given; but at first clear soot-water is the best, and if applied at every second watering, both the colour of the flowers and the foliage will be improved. Some of the double whites and pinks are most useful for cutting and placing in vases.

SHAMROCK.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Border Carnations.—From the middle to the latter end of July is a very suitable time for layering the growths of these for providing next year's flowering plants and the plants to get thoroughly established. Before commencing to layer some fine soil should be got in readiness, and some pegs for holding the shoots firm. A compost of loam and leaf-mould, with a liberal addition of coarse sand, is preferable, though, failing that, old potting compost passed through a fine sieve will do.

Liliums.—Attend to the staking and tying of these as they extend, using neat stakes, nothing being better than Bamboos. The stronger-growing species will, of course, need stouter stakes in proportion. Where such as *L. auratum* and varieties are planted among Rhododendrons and the like, they will be greatly benefited by copious supplies of water and applications of liquid manure-water.

Montbretias.—The growths must be kept looped up or supported with twiggy branches, and where grown in lines the Dutch hoe should be worked frequently among them. On light soils a mulch will be of much value, but on heavier soil, and where the ground was well enriched and deeply worked, it is not so essential.

The Rock Garden.

The Dripping Weather we experienced during last month has caused a great many plants to make unusual growth, and many of the commoner subjects have exceeded their boundary. When overhauling for weeds and making tidy, any such subjects, if encroaching upon better plants, should be curtailed, and, if necessary, be taken up altogether.

Campanulas.—For flowering on the rock garden during July many of the dwarf Harebells are excellent and remarkably free, and are soon established where the soil is well drained. *C. pusilla* when massed together is a pleasing sight, as is also, at the time of writing, *C. G. F. Wilson*.

Helichrysum arenarium.—One of the most interesting plants now flowering, and remaining so for a considerable length of time, is this alpine Everlasting. It is of free growth in almost any position, but seems to delight in plenty of sun, when the stems holding the heads of yellow rustling flowers are more freely produced.

Plants Under Glass.

Mignonette.—With a little care and attention, more particularly to watering than anything else, it is quite easy to have pots of this fragrant flower in the winter months, and nothing is more delightful for the decoration of the greenhouse. Seed may be sown now, and another batch or two at intervals of a fortnight or a month. Sow a pinch of seed singly into small pots, and have the latter cleaned, drained, and filled with a nice sweet compost of loam, leaf-mould and coarse grit or sand. Stand in a frame and admit air freely, especially when the seed has germinated, and as soon as the seedlings are large enough, thin out to the best. The plants must be grown sturdily throughout, and potted as becomes necessary.

Solanum Wendlandii.—Among greenhouse climbers this is one of the showiest, especially when the young growths with their flowers are allowed to hang down. For this reason the tying in should not be too severe. Give copious supplies of water to the roots, and occasional waterings with liquid manure-water.

Cyclamen.—A frame with a north aspect will suit the plants admirably now for the time until they are housed. Give abundance of air, removing the lights whenever possible, and in warm localities the lights may be drawn off on mild nights. To encourage growth, syringing must be regularly practised and the growth kept free from thrip, and occasionally rearrange the plants, rake over the ashes and give a dusting of soot.

The Kitchen Garden.

Winter Greens.—Up till the end of the month the later plants of the various Kales, Savoy and Broccoli may be planted. Well water in, and if the weather is dry, water previous plantings.

Turnips.—Make good sowings of Turnips where vacant ground can be found for autumn and winter crops. Thin out earlier sowings at intervals.

Keep the hoe working among them, and dust with soot in the early morning when the weather is showery. For the present sowings select a somewhat shaded position.

Late Peas.—These will greatly benefit by dampings overhead on mild evenings and a mulch of manure or long litter applied to the surface of the soil. If the weather is dry, water copiously, as drought is conducive to attacks of mildew, which will play havoc with the crop. If the ground is hard, the surface should be lightly loosened on either side of the rows before watering.

Fruits Under Glass.

Melons.—The plants in heated frames that are swelling their fruits must not be allowed to suffer for the want of water, and, to encourage the fruits to swell freely, varying stimulants should be afforded. The fruits should be elevated from the soil so that they do not become disfigured by insect pests, and the foliage kept well syringed to keep it in a healthy and clean condition. The lights may be well elevated during the hottest parts of the day, closing in the afternoon, according to the weather. Remove lateral growth so that it does not become too congested, and have a slight circulation of heat in the water-pipes at night. For the latest crop in the house sow seed at once, if this has not already been attended to, and raise quickly in the usual manner.

Figs.—These make a quantity of growth at this season, and thinning is necessary, or overcrowding will result. Where the trees are cropping freely, and especially in restricted borders, watering and feeding must be done liberally and a heavy mulch afforded the borders. Thoroughly syringe the foliage to keep it in a healthy condition and free from spider. At this season of the year little fire-heat is wanted, and during hot days abundance of air may be afforded the trees. A little shading stippled on the glass will be beneficial.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Watering.—A few days of heat at this period causes some plants to suffer for the want of water, *Astilbes Davidii* and *grandis*, *Rudbeckia speciosa*, *Lobelia cardinalis* and *Phloxes* being peculiarly susceptible to drought. One should not wait for the plants to show distress, but give liberal douchings before that. I always add manure to the water, which carries the plants longer than pure water, and it has the further advantage of adding lustre to the colour of the flowers. Hard water is not to be recommended.

Herbaceous Borders.—Shorten the stems of *Rudbeckia laciniata* varieties grouped without stakes. Flowered-out single-stemmed plants of *Aconitum Napellus* may be rooted out to give others more space. *Helianthus* growing too close should be thinned. Perennial Poppies, such as *Papavers rupifragum* and *pilosum* will need much attention, cutting out the old stems so as to encourage the new to fill up. *Anchusa italica* varieties need much the same treatment when they flower to the end of the season.

Gladiolus.—Short stakes should be placed to these before the spikes lengthen out. This enables them to maintain an upright position without having to use longer and ugly stakes later. They much appreciate manurial dressings and a fair supply of moisture in dry weather, but continued wet and cold are hurtful and lead to disease in the corms.

Shrubs.

Hedge-Trimming.—Where there is much of this work to overtake, a commencement may be made, choosing dull weather for the operation. A hedge should invariably be cut with a slight taper, which keeps it from sagging, and, if not overdone, cannot be noticed.

Box Edgings.—Those in old-fashioned flower gardens with gravel walks between the beds may also be cut at this time. The edgings are most in character when cut square-topped, with upright edges so as to appear like dwarf hedges. The very slightest inclination of the sides towards the upper edges should also be made in these.

Philadelphus.—The varieties derived from *P. microphyllus*, such as *Lemoinei erectus*, will now be out of flower, and need the old flowering shoots to be cut back somewhat to give space for the young ones. Pruning, moreover, stiffens the shoots, which in this and some other sections, e.g., the late-flowering *grandiflorus*, are apt to become very straggly if allowed to grow unchecked. The young growths strike root as freely as *Verbenas* when taken at this time of year and the cuttings dibbled in sand or Cocoanut fibre waste in a propagating-pit. *P. rosæflorus* and *P. purpureo-maculatus* are perhaps the two finest varieties.

Fruit-Houses.

Tomatoes.—These usually make more foliage than is of utility, and besides the side axillary growths, which must be rigidly suppressed, a portion of the leaves may also be removed with advantage and the others shortened. While in full growth the plants ask for abundance of water at the root with regular supplies of manure, but with a dry, airy atmosphere. In some structures it is essential to shade the plants on very hot days, else the foliage gets browned and curled up.

Cucumbers.—These can be kept in a healthy and free-bearing condition for a long time by means of judicious pinching, light cropping, removal of damaged foliage, and surface-dressings of rough turf and manure; but it is now worth while to sow seeds or strike cuttings in order to have a young stock to replace any that may give way next month when the nights get cold.

Grape Vines.—Lady Downe's will now be forward enough to be liable to scorching in tightly-glazed houses. Besides airing freely, late and early, a very slight shade over all the roof is advantageous. Muscats at this season are also liable to scorch, and the same means must be adopted. If the temperature should run too low at some hours, the pipes must be heated, but usually this is not essential provided time can be given for the fruit to ripen.

The Vegetable Garden.

Jerusalem Artichokes.—It does no harm to the crop to stop the stems, which saves them from being blown about by the gales which we experience sooner or later. A little soil thrown up the stems by means of a spade also helps to steady them.

Leeks.—These are now growing rapidly, and it will be necessary to determine whether the ridges may be levelled down or left for a few weeks longer. Those started in January will need fairly constant attention to tying up with thick brown paper, and watering with a weak solution of liquid manure poured through drain-tiles terminating near their roots.

Parsley.—Early-raised plants set out at wide intervals will now be well forward. There is a danger of coarsening the foliage if manure is applied; but should the plants show by the colour of the leafage that manure is needed, apply a slight dressing of soot, and hoe it into the surface of the ground. It is not too late to sow seeds for a spring crop, which sometimes comes in useful after a severe winter.

The Plant-Houses.

Roman Hyacinths.—As soon as the bulbs come to hand, pot up some for early flowering. Six-inch pots are suitable, and the bulbs may be arranged so as to nearly touch each other. Those at 20s. per hundred are to be preferred to cheap ones, which produce only one spike and sometimes none, an average of four from first-quality bulbs being usual. Water and place in a frame, covering with some material that will keep moist.

Narcissi.—Home-grown bulbs lifted a few weeks ago may now be potted or boxed, the soil well moistened, and the whole stood in a sheltered and shady position. A very slight covering of cinder-ashes is sufficient for these. Good varieties are *Golden Spur*, *Victoria*, *Telamonius plenus* and *Glory of Leiden* for early flowering; and for later, *Emperor*, *Sir Watkin*, *Horsfieldii*, *Mme. Plomp*, *Sulphur Phoenix* and *ornatus*. Hyacinths and Tulips should be ordered without further delay. The earliest Hyacinths are *General Pelissier*, *Mme. van der Hoop* and *Charles Dickens*; and of Tulips, setting aside *van Thols* in variety, *Proserpine* (perhaps the best of all), *Thomas Moore* and *Crimson King*.

R. P. BROTHERSTON.

Tynninghame, Prestonkirk, N.B.

SOCIETIES.

NATIONAL SWEET PEA SOCIETY.

JULY 9 AND 10.

THE twelfth exhibition of this popular flower was held in the Royal Horticultural Hall, Westminster, on the above-named dates, and obviously was a signal success. This was so from every point of view, though more particularly, perhaps, from the spectacular standpoint, and because of the added beauty to such an exhibition during recent years of many entirely new or greatly-improved shades of colour. This greater diversity of colour is in reality a great gain not to exhibitions only, but to the garden and, in turn, to decoration. Hence the scene, the product of a solitary type of flower, was as remarkable as it was good. The interest taken in the exhibition and the flower may best be gauged from the fact that competitors to the number of 180 came from all parts of the British Isles. Particulars of the show are appended. The general arrangements were admirable.

SUTTON CUP CLASS.

In this class, for twenty-one bunches of Sweet Peas, distinct, to be selected from the varieties recommended by the floral committee in the Classification List, the first prize was won by A. W. Stirling, Esq., Holme Lea, Goring, Oxon, whose splendid lot contained Thomas Stevenson, Gladys Burt, J. Ingman, Nubian, Sunproof Crimson, Tennant Spencer, Evelyn Hemus, Mrs. Harcastle Sykes, Earl Spencer, Flora Norton Spencer, Florence Nightingale (fine lavender), Elsie Herbert, Paradise Ivory and America Spencer. Second, C. Hopton, Esq., The Cottage, Greenford, with a collection of much less fine flowers. Three of the finest collections in this class were disqualified owing to the presence of double standards, which were distinctly forbidden by the conditions. There were seven competitors, some groups being very fine.

For twenty-four bunches of Sweet Peas, distinct, the first prize went to Mrs. A. E. Kensington, Haversbrack, Uckfield, whose best vases were Mrs. W. J. Unwin, Scarlet Emperor, Clara Curtis, Mrs. Harcastle Sykes, Barbara, Nettie Jenkins, Red Chief, Helen Grosvenor, Elsie Herbert, Flora Norton Spencer and Senator. Second, A. W. Stirling, Esq., Holme Lea, Goring, Oxon. Some of the finer exhibits in this class also were disqualified because of the presence of double standards.

HENRY ECKFORD MEMORIAL CLASS.

In this class, for twelve bunches of Sweet Peas, distinct, named varieties in commerce, the first prize was won by E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. Thomas Stevenson), whose grand lot comprised Melba, Hercules, Edrom Beauty, Queen Mary, Thomas Stevenson, J. Ingman, Queen of Norway, Elfrida Pearson, Mrs. C. W. Breadmore, R. F. Felton, Elsie Herbert and Marjorie Linzee. A magnificent lot of particularly bright flowers, that were, however, subsequently disqualified, owing to the presence of a double standard. The cup then went to Sir Randolph Baker, Bart., M.P., Ransdon, Elandford (gardener, Mr. A. E. Usher). Barbara, Lavender George Herbert, Evelyn Hemus, King Manoel and Doris Usher were of exceptional merit in a group of much excellence.

Six bunches of new Sweet Peas, distinct, selected from varieties first put into commerce since the autumn of 1911. First, Mr. Edward Cowdy, Longhall, County Armagh. Dobbie's Cream, King Manoel, R. F. Felton and Mrs. Cuthbertson were the best.

Three bunches of pink or cream pink Sweet Peas, waved, distinct: The first prize was awarded to F. Chetwynd Stapleton, Esq., Englefield Lodge, Englefield Green, whose vases were of the varieties Mrs. R. Hallam, Miss Chetwynd Stapleton and Mary Langdown. Three charming varieties. Second, R. P. Brooks, Esq., Rosehill, Par Station, Cornwall. Mrs. Hugh Dickson and Hercules were the best. Third, Sir Randolph Baker, Bart. There were eleven competitors in this class also.

For three bunches of Sweet Peas, distinct, with double standards, Mrs. A. E. Kensington, Uckfield, was first with Audrey Crier, Scarlet Emperor and Orange Perfection; second, Sir Randolph Baker, Bart., who had Dobbie's Cream and Mrs. Breadmore as his best; third, Dr. J. E. Phillips, Malpas. There were seven competitors in this class, the quality being very fine.

OPEN TO ALL—CLASSIFICATION CLASS.

Collection of twenty-four varieties of Sweet Peas (not more than one variety of any colour given in the Classification List may be shown): The first prize went to Mr. J. Stevenson, Poole Road, Wimborne, whose vases of Princess Victoria, Earl Spencer, Florence Nightingale and Thomas Stevenson were very fine; second, Mr. H. D. Tigwell, Harrow View, Greenford. There were four exhibitors, the class being a most effective one.

For twelve bunches of Sweet Peas, distinct, the first prize went to Mr. F. G. Bealing, Burgess Street Nurseries, Bassett; second, C. B. Gabriel, Esq., Horsell, Surrey; third, E. Otter, Esq., Stanhope Park, Greenford. In each instance the class cards bore this legend: "As all exhibits in this class contain double standards, the judges recommend" the prizes as above.

Three bunches of seedling Sweet Peas, distinct, to consist of varieties not yet in commerce (the exhibitor must be the raiser of the varieties, and each to be named): First, Mr. R. Bolton, Carnforth, who had Andrew Aitken (salmon), Agricola (blush lilac and mauve) and Birdbrook (mauve, waved fancy); second, A. W. Stirling, Esq., Holme Lea, Goring, Oxon, who had Clissie (mauve), Mrs.

A. W. Stirling (cerise) and Hetty (lilac blush); third, Mr. Robert Wright, Halsall Lane Nursery, Formby.

E. W. KING CHALLENGE CUP.

For twelve bunches of waved Sweet Peas, distinct, the first prize went to Alfred F. Blades, Esq., Rookfields, Reigate, with splendid vases of Melba, Hercules, Edrom Beauty, Othello Spencer and Flora Norton Spencer; second, R. P. Brooks, Esq., Rosehill, Par Station, Cornwall. This class was well contested.

Six bunches of Sweet Peas, distinct: First prize, R. P. Brooks, Esq., Par Station, Cornwall, whose best were Doris Burt (scarlet), Mrs. W. King (cerise), Isobel Malcolm (cream) and Dazzler; second, Sir Randolph Baker, Bart.; third, Mr. Thomas Jones, Ruabon.

Six bunches, distinct, double standards: First, Mr. F. G. Bealing, Bassett. Bertrand Deal, Duplex Spencer, Clara Curtis, Sunproof Crimson and Elfrida Pearson were included. Only one entry.

Three bunches of Sweet Peas, distinct, Helen Pierce type, waved or grandiflora varieties: First, Mr. H. H. Lees, Warblington, Havant; second, Messrs. Faulkner and Aitkins, Barrow Road Nurseries, Tarvin, near Chester; third, Mr. T. Cross, Bury St. Edmunds.

BURPEE CUP CLASS.

A display of waved Sweet Peas, to be arranged on a space 8 feet by 3 feet, and not to exceed 4 feet in height: First, Mr. A. E. Alsen, Denmead, Waterloo, for an admirable lot; second, F. A. Wellesley, Esq., J.P., Woking; third, Mr. C. W. Breadmore, Winchester. All the exhibits in this class were disqualified under the double-standard clause, the prizes being recommended as above. There were eight splendid tables arranged, the whole constituting a great attraction in the centre of the hall.

DISTRICT CLASSES.—LONDON COUNTY CLASSES.

Six bunches of Sweet Peas, distinct, at least two to consist of varieties first put into commerce during or since the autumn of 1911. The only exhibitor was disqualified for showing mixed bunches.

SCOTTISH CLASS.

Six bunches (conditions same as last): First, Mrs. Dunbar of Dunbar, Seapark, Forres, N.B. Only two exhibitors, one being disqualified for double standards.

IRISH CLASS.

Nine bunches of Sweet Peas, distinct (under similar conditions): First, Mr. Edward Cowdy, Longhall, County Armagh, who had excellent examples of White Queen, Mrs. R. Hallam and Tennant Spencer; second, Mrs. James Hall, County Tyrone.

WELSH CLASS.

Under similar conditions: First prize, Mr. J. E. Alan Gibbs, Dinas Powis, Glamorgan, Nancy Perkin and R. F. Felton being good; second, Mr. Thomas Jones, Bryn Penylan, Ruabon.

NORTHERN COUNTIES CLASS.

Under similar conditions: First, Dr. J. E. Phillips, Malpas, Cheshire, Clara Curtis, Flora Norton Spencer and Queen of Norway being good; second, Mr. J. F. Harrison, Ulverston.

WESTERN COUNTIES CLASS.

There was only one entry in this class, the first being given to R. P. Brooks, Esq., Rosehill, Par Station, Cornwall. The prize in this class was a "recommended" only, a double standard being found in the exhibit.

EASTERN COUNTIES CLASS.

First, F. E. Hall, Esq., Redbourn. Edna Unwin, Mrs. Heslington, Hercules, Dobbie's Cream and Flora Norton Spencer were all grand. Second, Sir M. Turner, Bedford, Thomas Stevenson, Elsie Herbert, Nubian, and Sunproof Crimson were excellent. There were twelve competitors.

MIDLAND COUNTIES CLASS.

First, Mr. Robert Hallam, Radcliffe-on-Trent, who had Clara Curtis, Nettie Jenkins and Hercules in splendid form. Only two entries.

SOUTHERN COUNTIES CLASS.

First, E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. Thomas Stevenson), who staged a grand lot of flowers. His best vases were Barbara, Mrs. Routzahn, Lady E. Eyre, Money-maker, Marjorie Linzee, and Mrs. C. W. Breadmore, Scarlet Emperor being particularly fine. Second, Sir Randolph Baker, Bart., M.P., Blandford; third, A. L. F. Cook, Esq., Iver, Bucks.

BREADMORE CHALLENGE CLASS.

Twelve bunches, distinct, named varieties in commerce: First, Mr. Edward Cowdy, Greenhall, County Armagh, who had a really grand lot. Wenroe Castle (bronze and blue), Barbara, Mrs. R. Hallam, White Queen, Gladys Burt and Lavender Queen were all superb. There were only two exhibitors, the second prize going to Marshall Y. Green, Esq., Eynsford.

Six bunches, distinct: First, Mr. W. H. Smith, 12, George Street, Hailsham, Sussex. Sunproof Crimson, Masterpiece, Hercules, Freda, President and Aurora constituted this fine lot. Second, Mr. J. A. Newman, Elmgrove Road, Weybridge, who had a splendid set. Nettie Jenkins, Helen Lewis and Thomas Stevenson were all good. Third, H. St. J. Cavell, Esq., Cheam.

The Hawlmark Challenge Cup class, for twelve bunches, was keenly contested, and was won by Mr. T. Jones, Ruabon, who had splendid quality bunches of Sunproof Crimson, Lavender George Herbert, Elsie Herbert, Hercules and Queen of Norway. The second-prize stand could not be found: while Mr. J. Hall, Moy, County Tyrone, was placed third.

For six bunches Mr. W. H. Smith, 12, George Street, Hailsham, won first prize with effective examples of White Queen, Hercules, Mrs. Heslington, Sunproof Crimson and Majestic. He was followed by Dr. G. S. Leggatt, Thompson Road, Harpenden, having Melba, Sunproof Crimson and Countess Spencer as his best examples; while Mr. A. Everett, Fairview, Chappel, Essex, was third.

For three bunches there was a host of entries, Mr. W. H. Smith winning with A. Unwin, Queen Victoria Spencer and John Ingman; and Mr. M. P. Cressey, Oak Manor, Tonbridge, third.

There was a rare tussle for the Horace Wright Challenge Cup. This was, however, secured by Mr. W. H. Holloway, Percyville, Port Hill Gardens, Shrewsbury, who staged splendidly, some of his best being Thomas Stevenson, William Bolton, Mrs. C. W. Breadmore, Mrs. Charles Foster, Elfrida Pearson, Queen of Norway and Barbara. The second prize fell to Mr. F. Green, The Beeches, Swaythling, Southampton, who had capital vases of Melba, Doris Usher, Lady Eyre and Hercules; while Mr. C. R. Jaggs, Hertford Heath, was a fine third.

The Walter Voss Challenge Cup, for six varieties, was won by Mr. E. J. Gee, Broadway, Chesham, with a good, level display. Mr. H. Hesford, Addlestone, followed; and Mr. G. Pain, 64, Linzee Road, Hornsey, brought up the rear.

For six vases of waved varieties Mr. E. D. Marshall, Early Rise Arms, Reading, was awarded first prize with fine specimens of Nubian, John Ingman, Maud Holmes, Constance Oliver and Tennant Spencer. Mr. C. R. Jaggs was second; and Mr. W. T. James, Kempton Hoo, Bedford, third.

For three bunches Mr. E. D. Marshall led off with Mrs. H. Sykes, Thomas Stevenson and Stark's Queen; followed by Mr. W. Mousley, Fairholme Road, Ashford; while Mr. G. H. Guy, Reigate, brought up the rear.

For two bunches of cream pink varieties Mr. W. Mousley won first with excellent examples of Constance Oliver and Doris Usher; while Messrs. E. N. Sears and F. Green secured the other prizes in the order named.

DECORATIONS.

Mrs. F. G. Bealing, Bassett, won first prize for an epergne, using a combination of blue and cream with suitable foliage; second, Mrs. A. Duff, High Street, Charnbrook; third, Miss J. G. Cuthbertson, Mark's Tey.

The first prize for a vase went to Mrs. W. Maslin, Orchard Hill Cottage, Addlestone, for a tasteful arrangement. Mrs. A. R. Bide, Farnham, was second, and Mrs. F. G. Bealing third.

There were fourteen entries for a dinner-table decoration. Mrs. W. Fulcher, jun., 21, Moulsham Street, Chelmsford, won first prize; second, Mrs. A. D. Duff, High Street, Charnbrook; third, Mrs. A. Everett, Chappel, Essex.

There were twelve entries for two button-holes and one spray, the first prize going to Miss J. G. Cuthbertson; second, Miss Kitty Ackers, Huntley Manor, Gloucester; third, Miss B. E. Armstrong, Fish Pond Road, Hitchin.

AWARDS.

Awards of Merit.—To R. F. Felton, a very fine lavender waved variety, the flowers nicely placed on the stems, from Mr. R. Bolton; to Agricola, a pale lavender edged with a deeper shade of the same colour, very fine flowers, from Mr. R. Bolton; to Decorator, a rich rosy cerise, flowers large, with fine waved petals, from Messrs. G. Stark and Son; to Bertrand Deal, a fine rosy lilac form with well-placed flowers, from Mr. Bertrand Deal; and to Lady Miller, a cream variety suffused rosy pink of a pleasing shade, from Mr. I. Malcolm.

NON-COMPETITIVE EXHIBITS.

The trade groups were arranged right round the wall of the hall, each exhibitor having the same space. Many of them made the most of it by ascending 10 feet or more high. Messrs. J. King and Sons, Coggeshall and Reading, presented a tasteful exhibit, having a large arch in front covered with fine varieties. Some of the best sorts were Gladys Burt, Hercules, Evelyn Hemus and Edward Prince of Wales.

Messrs. Dobbie and Co., Edinburgh and Mark's Tey, had some splendid Sweet Peas arranged beautifully between trails of Smilax and Asparagus. The most prominent varieties were Melba, Decorator, Inspector, Lady Miller, Thomas Stevenson (very fine), Lavender George Herbert and Mrs. H. Dickson.

Messrs. S. Bide and Son, Limited, Farnham, presented a telling exhibit, which included Waved Prince Olaf, R. F. Felton, Jeannie Gordon Spencer, Barbara, St. George and Florence Nightingale.

Mr. W. O. Cantley, Bury St. Edmunds, had a pleasing exhibit, consisting of three tall columns with vases displayed round them. Melba, Prince George, Hercules and Charles Foster were good here.

From Messrs. Aldersey and Marsden Jones came an effective stand, though it could not be said that the blue drapery improved it. Their chief varieties were Romani, Tortoiseshell, Moonstone, Sycra Lee and Beryl.

Messrs. Barr and Sons, Covent Garden, had a fine exhibit in which were noted such varieties as Barbara, R. F. Felton, Nubian, Scarlet Monarch, Thomas Stevenson and Mrs. J. C. House.

Messrs. W. Voss and Co., Millwall, also had a fine decorative exhibit, with Edith Taylor, Barbara, Rosabelle and Mrs. W. J. Unwin as some of the best features.

Messrs. G. Stark and Son, Great Ryburgh, had a good display of fine-quality Peas, especially the varieties The Lady, Decorator, Maggie Stark, Helen Williams and Primrose Beauty.

The exhibit of Robert Sydenham, Limited, Birmingham, was nicely displayed in rustic arrangements. Their

best varieties were Orion, Lady E. Eyre, Lillian, R. F. Felton and Scarlet Emperor.

Messrs. Jones and Sons, Limited, Shrewsbury, staged well, having bright examples of Stirling Stent, Barbara, Masterpiece and Doris Burt, all displayed in huge masses.

The exhibit of Mr. Bertrand W. Deal was confined to his new seedlings, Juliet, Bouquet, Francis Deal, Kathleen and Gordon Keeble.

Mr. J. Stevenson, Wimborne, Dorset, had made the most of his space, staging Maud Holmes, Earl Spencer, Mrs. Townsend, Hercules and Stirling Stent.

Messrs. Jarman and Co., Chard, staged tall columns of H. Balfour, Paradise Ivory, Masterpiece, Mrs. Townsend and Nancy Perkin with several other varieties.

Mr. Robert Bolton, Carnforth, had some splendid bunches on his stand, their colours being very bright, especially Doris Usher, Andrew Aitken, Prince George, Charles Foster and Afterglow.

Mr. W. E. Alsen, Denmead, also put up a worthy display against a white background. Most notable were Minnie Furnell, Florrie, Maud Holmes, Senator Spencer and Mrs. Cuthbertson.

Mr. James Box also staged beautifully and with much taste. He had Orange Perfection, James Box, Clara Curtis, R. F. Felton, Rosabelle and Charles Foster.

From Messrs. J. Carter and Co., Raynes Park, came a large trophy, from which their Peas were suspended. The arches and columns were also tastefully filled with such varieties as Nancy Perkin, Senator Spencer, Mrs. Hugh Dickson, Mrs. W. J. Unwin, Hercules and Helen Grosvenor.

Mr. W. J. Unwin, Histon, had fine, tall vases in his stand of Helen Lewis, Nettie Jenkins, Mrs. Hallam, Stirling Stent, W. P. Wright and Charles Foster.

From Mr. T. Cross, Bury St. Edmunds, came quite a distinct display, the main portion being a series of arches, on which were to be seen Princess Juliana, Stirling Stent, Sunproof Crimson and Edrom Beauty.

Messrs. E. W. King and Co., Coggeshall, displayed their Anglian Peas in their various shades, also Elsie Herbert, Rosabelle, Gladys Burt and Hercules.

Mr. C. Breadmore, Winchester, had a capital exhibit, in which were to be seen Alpha, Melba, Aggie Elder, R. F. Felton and Bertha Massey.

WOLVERHAMPTON FLORAL FETE.

THE twenty-fourth meeting of this successful and prosperous society was held in the beautiful West Park on Tuesday, the 9th inst., the weather being warm and pleasant, as it had been on the two preceding days. The president of the society, the Mayor of Wolverhampton, and the committee of management are to be congratulated on the extent and quality of the exhibits, which, in the opinion of good judges, have not previously been excelled. The schedule is an attractive one, offering, with silver cups and gold medals, close upon nine hundred pounds in prizes. To the majority of visitors, no doubt, the groups of plants arranged for effect offer the greatest attraction. In Class 1, the premier class for groups, £260 is offered in four prizes. Prizes on a similar generous scale are offered throughout all the classes, so no wonder Wolverhampton commands a good show.

The first prize in Class 1 (groups) went to Messrs. Cypher and Sons for one of their best examples, and this is saying much. Mr. Holmes of Chesterfield, who was a good second, had a delightfully-arranged group, but not so rich and varied in tones of colour and finish as the first-prize group. The third prize went to Sir George A. Kenrick of Birmingham; and the fourth to Mr. Vause, Leamington.

Class 2 was for a group of ornamental foliage plants and Ferns, flowers not allowed. Five exhibitors competed in this class, the first prize being easily won by Messrs. Cypher and Son for a splendid collection of well-grown plants, artistically arranged; second, Sir George A. Kenrick; third, Mr. Holmes; fourth, Mr. W. Manning; and an extra prize, Mr. Vause.

For a collection of twenty plants in pots not exceeding 8 inches, at least eight to be in bloom, Messrs. Cypher again took the lead; second, Mr. B. H. Mander; third, Sir Charles T. Mander, both of Wolverhampton.

In the class for rock and water gardens only one competed, the exhibitor, Mr. J. E. Knight of Titenhall securing the first prize, £25, the exhibit being of high merit.

Class 5, group of flowering plants, one species only, to occupy a ground space of 50 square feet: The first prize here was easily won by Messrs. Blackmore and Langdon with one of their superb collections of tuberous-rooted Begonias, including three delightful hanging baskets of Begonias.

Roses are always a great feature of the Wolverhampton Show, and although the National Rose Show and other important exhibitions were held on the same day, its high character in this respect suffered no diminution.

In the class for seventy-two, Messrs. D. Prior and Sons, Colchester, were first with magnificent examples; second, The King's Acre Nursery Company, Hereford; third, Messrs. R. Harkness and Co., Hitchin; fourth, Mr. W. H. Frettingham, Beeston, Notts.

The class for nine baskets of Roses was a magnificent one. Here Mr. Frettingham proved a good winner, securing the first prize.

For thirty-six blooms The King's Acre Nursery Company were first and Mr. W. T. Mattock second.

Bouquets and cut flowers: One of the most attractive and beautiful features of the show, especially among the ladies, Messrs. Perkins and Sons of Coventry being first for both hand and bridal bouquets.

Hardy border flowers: The competition in these was not so keen as we have seen it before, Messrs. Harkness of Bedale, however, taking first prize with a superb collection, well set up.

Dinner-table decorations: The tent devoted to these was well filled with lovely examples, and we did not envy the judges the task of finding the best in the respective classes.

Carnations (open class): Here Lady Grey of Enville, Stourbridge (gardener, Mr. Green), was first with a fine lot; second, Mr. C. F. Waters.

Sweet Peas: Though the National Sweet Pea Show was held on the same day, these made a brave and beautiful show. For eighteen varieties, distinct, Messrs. Castle Brothers, Carnforth, were first; Sir R. Baker second. For nine distinct varieties, prizes offered by Robert Sydenham, Limited, the first prize was taken by Mr. T. R. Caewell. For six distinct varieties, open to Messrs. Webb and Sons' customers only, Sir R. Baker was first; second, Sir C. T. Mander.

Fruit: Collection of twelve dishes, not less than nine kinds, to occupy space 6 feet by 4 feet 6 inches. Here, as in other fruit classes, Lord Savile (gardener, Mr. Doe) was invincible. In this class he had splendid examples of well grown and ripened fruit, his Madresfield Court Grapes being superb. The second prize went to the Duke of Newcastle (gardener, Mr. Barker) for an excellent collection. Each collection was decorated with flowers. For four bunches of Grapes, distinct, two black and two white, Lord Savile was first; the Duke of Newcastle second. For two bunches of white Grapes, Lord Savile was first; Lord Harrington (gardener, Mr. Goodacre), second. For two bunches of black Grapes, Lord Savile was again first; the Duke of Newcastle second.

A new fruit class was introduced this year, namely, a decorative table of British-grown fruit of thirty dishes. Two growers only competed, the first prize of £20 going to the Duke of Westminster (gardener, Mr. Barnes); second, Lord Harrington. Both were excellent examples of fruit in season. This is a very important class, and in the future cannot fail to attract a stronger competition. We suggest that each exhibit in this class should have a table devoted to itself, so that the fruit and flowers with which it is decorated may be fully seen and enjoyed by the public.

At the luncheon which followed the judging, the Mayor of Wolverhampton presiding, Mr. W. E. Barnett, the secretary of the society for twenty-one years, was the recipient of a testimonial from the exhibitors and judges. It took the form of a silver tea and coffee service, and four silver vases for Mrs. Barnett, the presentation being made on behalf of the exhibitors by Mr. Owen Thomas. Mr. Barnett is resigning his position in consequence of failing health. He is held in the highest esteem by all who know him, and the response to the appeal was generous and prompt.

NATIONAL ROSE SOCIETY'S SHOW.

(Continued from last week.)

AMATEURS.—OPEN TO GROWERS OF FEWER THAN 200 PLANTS.

THE fifteen entries in the class for six blooms, in not less than four varieties, made a brave show. First prize was won by Mr. Richard Arkwright, Herne House, Windsor, with a nice set, J. B. Clark and Mrs. T. Roosevelt being very good. Mr. John W. Roff, 36, Vallence Road, Wood Green, N., was a capital second, showing Queen of Spain well. Third prize went to Mr. A. L. F. Cook, The Cedars, Iver, Bucks.

The class for four trebles is a popular one, and on the present occasion Mr. F. A. George, Red Hill, Worcester, led the six entrants with a pleasing series, having Hugh Dickson in capital form. Second prize was won by the Rev. T. T. Kershaw, and third prize by Mr. J. W. Roff, both staging excellent examples.

The fifteen boxes staged in the class for six blooms of any Rose other than Tea or Noisette made a very excellent display. Grand blooms of The Lyon Rose won first prize for Mr. F. G. Padwick; with Frau Karl Druschki Mr. F. E. Hall, Cumberland Cottage, Redbourne, Herts, was second; and with the same variety Mrs. G. Gosling Stratton, Audley Park, Bicester, was placed third.

The metropolitan classes and those classes open to new members were much sought after, and the product was most praiseworthy.

DECORATIVE CLASSES.

In the lady novices' class for bowls of cut Roses Mrs. J. Bide, Uxbridge, came first, with Miss Cook, Whetstone, second, and Countess Olga Poutiatine third.

The table decorations were very effective. In the class open to lady amateurs only, Mrs. A. E. Brown, Reigate, was first with a pretty arrangement consisting of Richmond and Jessie. Mrs. Walter Morrison, Theydon, Reigate, was second, and Countess Olga Poutiatine third.

Vase of cut Roses (lady amateurs only): First, Mrs. J. Bide, Uxbridge; second, Mrs. E. F. Brown, Slough; third, Miss E. S. Scott, Eastbourne.

In the open class for a dinner-table decoration in a space 8 feet by 4 feet, Mrs. A. R. Bide obtained the first award with a very pretty arrangement consisting of Sunburst. Miss M. Foden, Hemel Hempstead, was second, and Mrs. F. M. Bradley, Peterborough, third.

The first prize for a bowl of cut decoratives went to Mrs. A. R. Bide, Farnham, for a tastefully-arranged bowl of Mrs. A. R. Waddell. Second prize was taken by Dr. F. H. Cooke, and the third by Mr. E. J. Hicks.

Basket of cut Roses: First, Mrs. E. M. Burnett, Southampton; second, Mrs. F. O. Fisher, Harrow; third, Miss D. F. Brown, Reigate.

In the class for a bowl of cut wichuraianas, Miss J. Langton, Hendon, was first; Mrs. E. M. Burnett second; and Mrs. Walter Smith, Watford, third.

For a bowl of cut decoratives, open only to lady amateurs, Mrs. F. H. Cooke, Colchester, was first; Mrs. F. A. Tisdall, Woodford Green, second; and Mrs. J. Bide third.

Mrs. Barnes, Rochford, Essex, won the first prize for six distinct varieties of button-holes; Mrs. Vivian Wood, Rickmansworth, was second; and Mrs. Panckridge third.

TEA AND NOISETTE.

The Challenge Trophy and Replica—a much-coveted honour among amateurs—was won by Mr. Alexander Hill Gray, Newbridge, Bath. The trophy was awarded for eighteen blooms, and among the best in the winning collection were White Maman Cochet, A. Hill Gray and Maman Cochet; second, Mr. E. M. Eversfield, Horsham; third, Mrs. Fortescue, Dropmore, Maidenhead.

Mr. A. Hill Gray was again successful for twelve blooms with a splendid dozen, including Mme. J. Gravereaux, Mrs. F. Hobbs and White Maman Cochet; second, Mr. Eversfield; third, Mr. Conway Jones, Gloucester.

Mr. Eversfield was successful in the class for eight varieties, followed by Mr. A. Hill Gray and Mrs. Fortescue.

The Rev. F. R. Burnside was first for six blooms of one variety, showing White Maman Cochet in superb form. Mr. A. Hill Gray was second with the same variety.

Very keen competition was displayed for the Prince Memorial Prize, for twelve blooms, and after a hard fight Mr. F. Slaughter, Steyning, proved to be the victor; second, Dr. F. H. Cooke, Colchester; third, the Rev. J. B. Shackle, Maidenhead.

Dr. F. H. Cooke was first for six blooms of one variety, White Maman Cochet was again to the fore. Second, G. Speight, Esq., Market Harborough.

OPEN TO GROWERS OF FEWER THAN 200 PLANTS OF TEAS AND NOISETTES.

Mr. M. Whittle, Leicester, gained the much-prized piece of plate for nine blooms, distinct. Maréchal Niel and Mme. Jules Gravereaux were splendid. Second, Mr. S. W. Burgess, Tonbridge; third, Mrs. H. Balfour, Oxford.

EXTRA CLASSES FOR AMATEURS GENERALLY.

This is a section open to all amateurs who have not previously won either the champion challenge trophy or the first prize in the respective classes.

For twenty-four blooms, distinct varieties, there were two entries, Dr. T. E. Pallett winning the piece of plate with a first-rate lot of blooms. Avoca, White Maman Cochet, Mrs. Edward Mawley, Mrs. G. W. Kershaw and Mildred Grant were some of the better blooms. Second prize was won by Mr. G. R. Bonner, who showed well.

Class 70 was for six blooms of The Lyon Rose and six blooms of Mme. Melanie Soupert. A highly-coloured series of blooms won first prize for Mr. Conway Jones. Second prize was placed to the credit of Mr. Francis Crawley with a fresh lot of blooms; and third prize was secured by Mrs. H. Balfour. There were no other exhibitors.

For the Hammond Cup, for six blooms of new Roses, distinct varieties, there were six entries. The premier position was won by Mr. G. A. Hammond, Burgess Hill, Sussex, who staged Leslie Holland, Mrs. J. H. Welch, Mrs. Amy Hammond, Mrs. Maynard Sinton, Ethel Malcolm and Jonkheer J. L. Mock, all in fair form and condition. Second prize was won by the Rev. J. H. Pemberton, Havering-atte-Bower, Essex, who had a wonderfully high-coloured bloom of Juliet. Third prize was awarded to Mr. Gulliver Speight.

For twelve blooms, distinct varieties, there were nine entrants, and in this case Mr. G. A. Hammond won the Harkness Cup in securing premier honours. Her Majesty, J. B. Clark, White Maman Cochet, Mme. Jules Gravereaux, Comte Raimbaud, Ethel Malcolm, Mrs. Theodore Roosevelt and Mme. Eugène Verdier were some of the better examples. The amateur champion, Mr. E. M. Eversfield, was placed second with a truly superb lot of blooms. Lyon Rose, J. B. Clark, Dean Hole and White Maman Cochet were noteworthy. Dr. T. E. Pallett was placed third with a good box of blooms.

A very fascinating class was that for a collection of Roses, in not more than seven distinct varieties, and not fewer than six trusses of each variety. Mr. H. R. Darlington led the four exhibitors with a superbly fine display set up in attractive fashion in baskets, Bamboo stands and vases. Mrs. E. G. Hill, La Tosca, Mme. Antoine Mari, Auguste Conte, Molly Sharman Crawford, Hon. Edith Gifford and Débutante were the varieties shown. Miss B. H. Langton, Raymead, Hendon, N.W., was second with a praiseworthy series; and Mrs. J. Walter Smith, Sparrow Herne Hall, Bushey Heath, Watford, third with a very charming series.

EXHIBITION ROSES IN VASES.

In a class for five distinct varieties, five blooms of each, the first prize was well won by Mr. John Hart with pretty specimens deftly arranged in vases. White Maman Cochet, The Lyon Rose and Frau Karl Druschki were interesting.

In a similar class, open to exhibitors in Divisions G H I and J, only three exhibitors put in an appearance. Leading honours were won by the Rev. H. S. Arkwright with a really good series of blooms set up in attractive fashion in vases. Laurent Carle, Caroline Testout, Frau Karl Druschki and Perle von Godesburg were the better specimens. Mr. Alan Searle, Ashton Lodge, Bassett, Southampton, was a very close second. Third prize was won by Mr. Ernest R. Smith, Melford Lodge, Muswell Hill, N., who had Joseph Hill in fine form.

There were no fewer than twelve entries in the class open to those who have never won a first prize at the shows of the National Rose Society. First prize was well won by Mr. P. T. Davis with a pretty series. Florence Pemberton, Bessie Brown and Frau Karl Druschki were the varieties staged. Second prize was won by Mr. G. Newman, Eastholm Green, Letchworth, who had a charming series; and third prize went to Mr. Stuart Hogg, Leaside Cottage, Hertingfordbury, with a superb lot of blooms.

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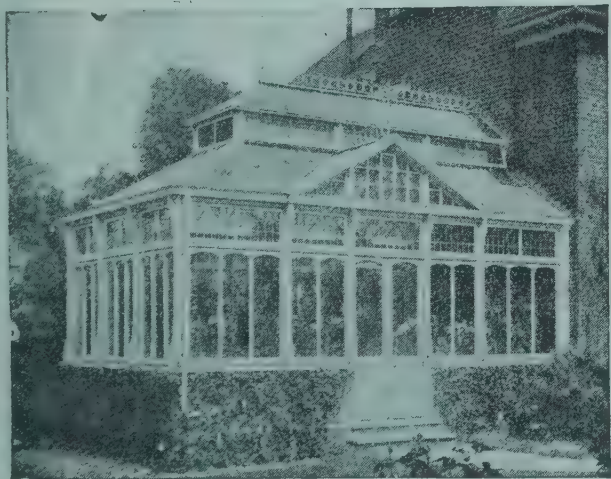
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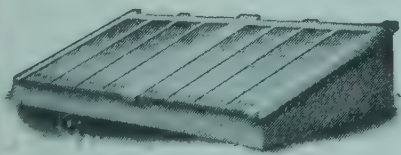
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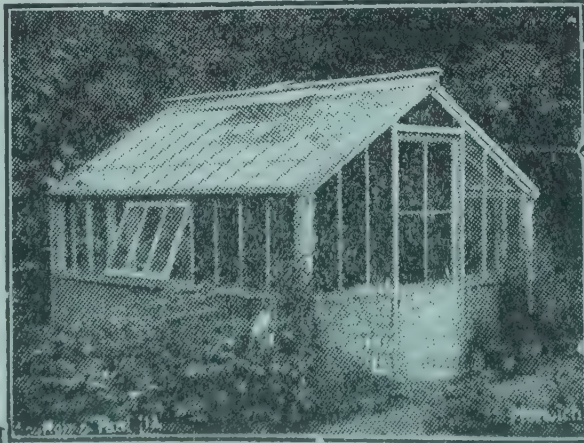
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Of the five entrants in the class for three baskets of cut Roses, in three distinct varieties, one variety in each basket, the leading position was occupied by the Rev. J. H. Pemberton, who set up in attractive fashion Prince de Bulgarie, Joseph Hill and Darrac (J. H. Pemberton). Second honours were awarded to Mr. H. R. Darlington, who showed Liberty, Mme. Leon Pain and Lady Ashtown superbly. Third prize was secured by Mrs. H. Balfour, also with a capital series.

The five exhibits in a class for seven distinct varieties, set up in separate vases, made a nice display. A grand exhibit by Mrs. J. Walter Smith was deservedly placed first. Lady Waterlow, Mme. Melanie Soupert, Irish Glory, Warrior, La Tosca and Liberty made a brave show. The Rev. J. H. Pemberton was a good second, showing charming varieties; and third prize was secured by Dr. F. H. Cooke, Birch, Colchester, with a good lot.

In a class for six distinct varieties in threes, in vertical lines, staged in the regulation Rose-box, there were four competitors. First prize was won by the Rev. J. H. Pemberton, who showed very well most interesting varieties. Second prize was secured by Dr. F. H. Cooke with a less meritorious display; and third prize was awarded to Mr. H. R. Darlington with a capital series.

DECORATIVE ROSES (GENERAL).

There were but two exhibits in the class for eighteen distinct varieties. A grand bank quite easily secured leading honours for the Rev. J. H. Pemberton, who staged his flowers in remarkably good form. American Pillar, The Garland, Mrs. Cutbush, Fabvier, Helene, Crimson Rambler, Blush Rambler, Trier, Hiawatha, Lady Gay, Leopoldine d'Orleans, Fellenburg and Leontine Gervaise were specially noteworthy. Mr. Alfred Tate, Downside, Leatherhead, was awarded second prize with a lovely series, Gloire des Rosomanes being most striking.

For twelve distinct bunches of decorative Roses there were five exhibitors. The piece of plate was won by Viscountess Enfield, Dancers Hill, Barnet, who staged her flowers in superbly fine form and condition. Marquise de Salisbury, Tea Rambler, L'Idéal, Mrs. F. W. Flight, François Guillot, Mme. Abel Chatenay, Irish Glory, Alberic Barbier, Blush Rambler and others were all shown in magnificent condition, and were much admired by the crowds visiting the show. A beautiful series won second prize for Mr. C. S. Gordon Clark, Fetcham Lodge, Leatherhead, Surrey. Minnehaha was very fine, as was Blush Rambler. Lady Sutton, Benham Valence, Newbury, was third with a praiseworthy lot of blooms. Papa Gontier and Bardou Job were splendid in this stand.

Magnificent aptly describes the ten exhibits in the class for six distinct varieties of decorative Roses. The popular secretary of the society, Mr. Edward Mawley, Rosebank, Berkhamsted, was first with a very lovely series of bunches in typical form. Lady Gay, Blush Rambler, Liberty, Mrs. Flight, Mme. Ravary and Crimson Rambler were the varieties set up. Second prize was won by Mr. John Hart, who staged large and attractive bunches of popular sorts. A good series won third prize for Mr. H. L. Wettern.

For six vases of wichuraiana Roses there were eight exhibitors. A very attractive series of bunches secured premier honours for Miss B. H. Langton, who showed freely-flowered bunches of Dorothy Perkins, Jersey Beauty, Hiawatha, Alberic Barbier, René André and Minnehaha. Viscountess Enfield was an uncomfortably close second, showing lovely bunches. Lady Gay, Paul Transom and François Guillot were especially noteworthy. Third prize was secured by Mr. F. A. George, Red Hill, Worcester, with a splendid series.

The class for five distinct varieties, arranged lightly in Bamboo stands, was a break away from the usual method of staging, and it was not altogether successful. Many of the flowers suffered owing to the heat. First prize was well won by Mrs. J. Walter Smith, whose stands were most attractively arranged. Ecarlate, Papillon, Trier, Gustave Regis and Blush Rambler were the varieties shown. Mr. Alan Searle was second; and a withered-up display secured third prize for Mr. Percival Smith.

New decorative Roses in four distinct varieties were good. First prize was won by Mr. A. R. Waddell, Rose-land, near Baldock, Herts. Lieutenant Chauré, Entente Cordiale, Mrs. A. R. Waddell and Chateau de Clos Vougeot were the varieties shown. The Rev. J. H. Pemberton was second; and Dr. Alfred Williams, Harrow, third.

LADIES' ARTISTIC CLASSES.

There were nine baskets of cut Roses, and first prize was won by Mrs. J. Walter Smith with a superb basket of Rose Irish Elegance, deftly arranged. Second prize was won by Mrs. F. H. Cooke, Colchester, with a superb example of double and single pink Roses. Third prize was secured by Miss Jessie Langton, Raymead, Hendon, with beautiful pink Roses; and fourth prize by Mrs. G. W. Cook, Whetstone, with richly-coloured blooms.

Of the eleven entrants for a vase of cut Roses, Mrs. F. H. Cooke led the van with Blush Rambler charmingly disposed. Mrs. J. Walter Smith was second with lovely Irish Elegance.

In the class for a bowl of Roses there was a very large entry. Mrs. F. H. Cooke led with a beautiful pink Rose arranged with sprays of copper-coloured foliage. With The Lyon Rose Mrs. E. F. Brown, Lynton, Sussex Place, Slough, was placed second; and with red Roses Miss M. E. West, Firth Dene, Reigate, was third.

Of the five circular decorated dinner-tables there were several beautiful examples. A very fine artistic decoration, with Rose Irish Elegance in silver ornaments, with trailing growths of Selaginella cæsia, well won the coveted award of first prize. With François Juranville Miss Jessie Langton won second prize with a daintily-arranged cable. Equal third prize was awarded to Miss Emily S. Scott, Albury, Eastbourne, for a charmingly-arranged table with Rose Sunburst, which was very beautiful. The other equal third prize represented Rose Lady Hillingdon in charming form and condition, with Asparagus foliage as an embellishment. This was won by Mrs. F. A. Tisdall, Trevorna, Trevor Road, Woodford Green, Essex.

TEAS AND NOISETTES.

Mr. W. Upton, Leicester, was a good first for six blooms, showing Mrs. Foley Hobbs, Mrs. Hubert Taylor, Maréchal Niel, Mrs. E. Mawley, Mrs. Myles Kennedy and Molly S. Crawford, all in perfection; second, Mr. L. S. Pawle, Beaconsfield.

Mr. Upton was again first for six blooms of one variety with Mme. Jules Gravercaux. The same variety was freely and well shown in this class.

Dr. F. H. Cooke was first with four varieties, three blooms of each; also in the class for a basket of Roses. In the latter class Mr. A. Hill Gray was second with a beautiful basket of Auguste Comte.

BEST BLOOMS.

AMATEUR CLASSES.

Best Hybrid Tea, Avoca, shown by Dr. T. E. Pallett; best Tea, White Maman Cochet, shown by Mr. A. Hill Gray; best Hybrid Perpetual, Horace Vernet, shown by Mr. Gulliver Speight.

NURSERYMEN'S CLASSES.

Best Hybrid Perpetual, A. K. Williams, shown by Messrs. H. Lane and Sons; best Hybrid Tea, George Dickson, shown by Messrs. Alex. Dickson and Sons; best Tea, White Maman Cochet, shown by Mr. George Prince.

** Owing to the demand on our space we are compelled to hold over the reports of the Royal Horticultural Society's Show, also the Manchester, Norfolk and Elstree Shows.

ANSWERS

TO CORRESPONDENTS.

THE GREENHOUSE.

WINTER FLOWERS (Novice).—In order to have greenhouse plants in flower at Christmas it will be necessary to maintain a temperature of 50° to 60°, and even then subjects that may be sown now to have them in bloom at that time are very few. You will understand that when preparations are made for maintaining a Christmas display in the greenhouse, most of the plants are taken in hand before this. You may now sow seed of the Chinese Primula in its several forms, some of which should flower at the time stated, while the same may be said of Stocks East Lothian and Beauty of Nice. The Marguerite Carnations can be readily raised from seed; but in their case it is necessary that they be sown in the spring for winter blooming. Of the different subjects that bloom at Christmas, the Cyclamen are sown about eighteen months previously, and the Primulas, other than the Chinese ones, in the preceding spring. Flowers that may be had in bloom at Christmas are Perpetual-flowering Carnations (from cuttings struck early in the year), Chrysanthemums, Begonias, Heaths and many others, but they are also all raised from cuttings.

ROSE GARDEN.

ROSES BLIGHTED (D. W.).—The twisted foliage is supposed to be caused by the leaf-rolling sawfly, but we must say we are very doubtful if it is not a fungus. Many experts are much perplexed by this leaf-rolling, and there seems to be no cure for it. You will see it described on page 51 of the "Enemies of the Rose," published by the National Rose Society, and they advise spraying with a nicotine wash, but, better still, to pick off the folded leaves when first seen and burn them.

DOROTHY PERKINS WITH SICKLY GROWTH (D. W., Surrey).—It looks as though there might be some cankerous part beneath the soil, or perhaps a piece of wire has become embedded in one of the main growths. We suppose these shoots do not specially catch any drip. We cannot explain it otherwise; but it might be worth while to place some wire-netting around the three plants to prevent any injury from cats or dogs. Cut out the sickly growths and train some of the healthy ones to take their place, for, as a rule, this Rose produces far too many growths.

FRUIT GARDEN.

INJURY TO GOOSEBERRIES (John M.).—The Gooseberry bushes have been attacked by red spider. Spray with potassium sulphide at the rate of 1oz. to two gallons of water. This spraying should in another year be begun early—at the beginning or middle of March—as soon as the pest appears.

FRUIT TREES IN POTS (J. B.).—The fruit trees in pots which you saw at the International Flower Show at Chelsea had been grown in pots since they were quite young, and are always fruited under glass. Fruit trees grown on this principle last a good many years, and bear good crops of high-quality fruit regularly. Some of the pot fruit trees exhibited at the show in question by Mr. Leopold de Rothschild were close on twenty years old, and had borne good crops with scarcely a failure during that time. The fruit is not quite so large when grown in this way as from trees planted in borders. The kind of house required for their growth is of the most simple and inexpensive description, consisting of a span roof of glass, and sides and ends halfway down also of glass. Instead of having a base of brick walls, timber answers the purpose very well, and, of course, costs much less. Almost any kind of fruit may be grown in this way, including Grapes, Peaches, Nectarines, Plums, Cherries, Pears, Apples, Strawberries and Figs. Some cultivators report their trees annually, but, generally speaking, once in two years is often enough, the autumn, as soon as the leaves have fallen, being the best time to repot. A top-dressing of loam and manure should be given every year as soon as the leaves fall. To be successful in this way of growing fruit, the grower must be skilful, experienced and painstaking in his work, taking no risks, as neglect in watering, ventilating, or in the destruction of insect pests would mean

failure, loss and much disappointment. On the other hand, it is an intensely interesting study and occupation. It entails no heavy work, and to those in search of a hobby, whether a lady or gentleman, we know of none from which it is possible to extract more interest and pleasure.

MISCELLANEOUS.

NAMES OF PLANTS.—Rev. L. Ward.—Your Roses are: 1, J. B. Clark; 2, George C. Waud; 3, Miss Alice de Rothschild.—J. C. K.—Rosa lucida plena.—G. W. I., Finchley.—Cornus Mas variegata.—W. Burbidge.—1, Hornbeam (Carpinus Betulus); 2, Field Maple (Acer campestre).—A. S. Graham.—1, Oxalis species, cannot say which without flower; 2, Cupressus macrocarpa; 3, Ballota nigra; 4 Euphorbia portlandica; 5, Anchusa sempervirens.

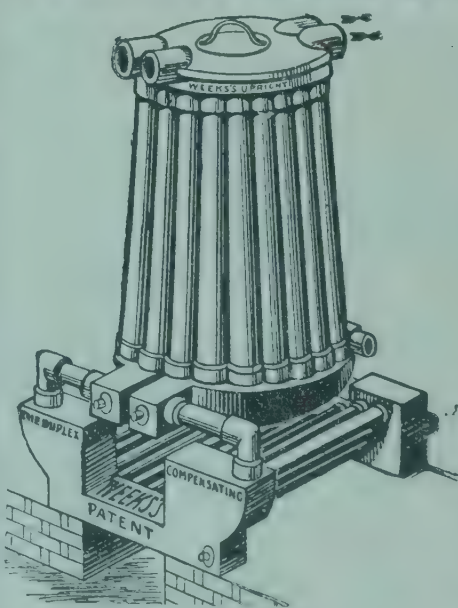
OBITUARY.

THE REV. F. D. HORNER, M.A., V.M.H.

We deeply regret to have to record the death of this esteemed gentleman, which occurred at his home, Greeta House, Burton-in-Lonsdale, on Thursday evening, July 11. His intimate friend, Mr. J. W. Bentley, sends the following: "He had been laid aside by illness for a few years, and most of his older friends have gone before, but there will be grief in the hearts that knew him when they realise their loss. He was the son of Dr. Horner of Hull, a notable grower of Tulips, Ranunculuses and other flowers in his day, and an able writer in the older floricultural papers, such as the *Gossip of the Garden*. The love of flowers and the ability to write about them were thus born in him, and well he used both, for his knowledge was great and his writings inimitable. While he had a catholic love for all flowers, his favourites were Auriculas and Tulips, and it is by them he will be best remembered. In conjunction with his friend, Mr. Simonite, he did great things for the Auricula, and it is largely due to their efforts that our Auriculas are so good to-day. He was the secretary of the Northern Auricula Society from its commencement for over twenty years, performing similar duty for the Northern Carnation Society for many years, and when the Victoria Medal of Horticulture was instituted he was worthily chosen as one of the first recipients. I fain would write of his kindness of heart, his love for all living things, of his humour and rare power of expressing his thoughts by voice and pen, but for the present these few inadequate lines must suffice as a tribute to the memory of my dead friend."

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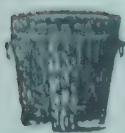
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THE GARDEN.

No. 2123.—Vol. LXXVI.

JULY 27, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

*The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Roses in Saughton Park, Edinburgh.—The Saughton Hall Park, Edinburgh, continues to develop in value and in beauty under the management of Mr. M'Hattie, the Edinburgh City gardener, and among the interesting and beautiful features are the old gardens of the Saughton Hall Mansion included in the park. The Rose garden is now very fine, and a number of members of the Town Council and other friends visited the park on the invitation of Councillor Inches, convener of the Parks Committee, on July 12. They were very much pleased with what they saw, and the Rose garden in particular was greatly appreciated. Various improvements tending to the comfort of the public are in contemplation.

Show of Forced Spring Bulbs.—A special exhibition of forced spring bulbs will be held on Tuesday and Wednesday, March 4 and 5, 1913, by the Royal Horticultural Society, the object being to demonstrate the varieties best suited to gentle forcing. Exhibits of small and large collections are invited from amateurs and the trade. Royal Horticultural Society medals will be awarded according to merit. The Council also offer (subject to the general rules of the society) a number of prizes presented to them by the General Bulb Growers' Society of Haarlem for various exhibits of Hyacinths, Tulips and Daffodils. Full particulars of these can be obtained from the secretary of the Royal Horticultural Society, Vincent Square, Westminster.

Silver Trophy for Amateurs' Rock Gardens.—On Wednesday, May 14, 1913, the Council of the Royal Horticultural Society will offer a silver trophy, presented to them by Mr. Clarence Elliott of Stevenage, for an exhibit of alpine and other plants suitable for a rock garden. These are to be arranged with rockwork as a rock garden in a space 6 feet by 3 feet. There must not be less than eighteen or more than twenty-four species or varieties. The first prize will be the Clarence Elliott Trophy. The Council will award a suitable medal according to merit, at their discretion, to the exhibitor adjudged second, and possibly also to the third. It is pleasing to note that at last the Council have realised the folly of holding a show the day after a Bank Holiday, and are holding the show referred to above on the Wednesday instead of the Tuesday following Whit-Monday.

Rose Lady Godiva as a Weeping Standard.—Surely this is the loveliest of all Roses grown in this form. What a cool, refreshing colour it is, one of the daintiest of blush pinks; and having this variety we want neither Christian Curle nor Dorothy Dennison. Weeping Roses are bound to be largely planted. There is nothing so beautiful as a well-developed weeping standard of the

wichuraiana Roses, and there is now variety enough for the most exacting. Up to the present Shower of Gold has been very disappointing in this form. The buds seem to live, but fail to unite to the Briar. There is still room for a really good yellow that keeps its colour well when fully out. Gardenia is fine, and probably Klondyke will be good. Aviateur Blériot is a glorious orange colour in the bud, but pales on opening. One of the best of the orange section is Desiré Bergera, a real gem, and one deserving of very extensive planting. It is a deeper-coloured form of Leontine Gervaise, one of our most fragrant ramblers as well as one of the loveliest colours.

Kent Commercial Fruit Show.—The second Kent Commercial Fruit Show will be held at the Corn Exchange, Maidstone, on October 29 and 30. The number of classes has been increased and several important alterations made. All the classes for six boxes of a variety have been opened to Great Britain and Ireland; by this it is hoped that numerous exhibits will be sent from the other fruit-growing districts, and that their methods of packing and grading will be represented. Other new features include classes for Apples Worcester Pearmain and Lord Derby, and also one for Pears. Messrs. Coupe and Sons, Covent Garden, London, have very kindly presented a challenge cup, value 20 guineas, for the best exhibit of six boxes in classes for Bramley's Seedling, Newton Wonder, Lane's Prince Albert, Blenheim Orange and Worcester Pearmain coming from Kent, Surrey or Sussex. The hon. secretary is Mr. R. Wellington, The College, Wye, Kent, from whom full particulars can be obtained.

The Spanish Broom.—A great deal is to be said in favour of the extended cultivation of Spartium junceum, the yellow-flowered Spanish Broom, for it continues in bloom for a considerable period from the beginning of July, and never fails to bloom profusely. As a rule, it is met with from 5 feet to 8 feet in height, but its height and habit depend almost entirely upon the will of the cultivator. Some people prefer to see freely-grown plants, and such may be obtained with a diameter of 5 feet or 6 feet. Others prefer to see their plants more compact in habit, hence the practice of cutting them severely back to near the base of the previous year's growth each spring, which encourages a rather stiff, globular habit, the plants at flowering-time being perfect globes of gold. In whichever way the plant is to be grown eventually, it is necessary to be rather severe with the pruning-knife in the early stages, otherwise the plants become very leggy. For the wild garden or for planting on dry, sandy banks, the Spanish Broom is excellent, for it does not require anything in the way of rich soil or elaborate cultivation. Seeds may be sown in pots, and the young plants must be kept in pots until planted in permanent places.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The "Breaking" of English Iris.—In my note on this subject which appeared on page 362 of last week's issue, the Iris under question was referred to as *I. Xiphium*. This should have been *I. xiphioides*.—J. JACOB.

Curious Laburnums.—There is an interesting half-column of reading under the above title in the issue for June 22 of THE GARDEN. As the Editor mentions there are some examples of *L. Adamii* at Syon House, may I also record having seen this plant at two other places? One was at Fonthill House Gardens, Tisbury, Wilts; the other in a small garden at Fortis Green, East Finchley, N. Both were well-grown trees of the usual Laburnum size.

Rose Marquise de Sinety.—Like "Avon," I, too, would add a word in praise of this lovely Rose, most particularly because of its unique colour. True, it has not yet proved very free in flowering with us, but this may be remedied with age. Its growth is reasonably strong, with glossy bronze green foliage, while the flower passes, as it opens, from yellow to a bronzy shade, as "Avon" has it, "a much-needed colour in the Rose world."—C. T., Highgate.

Dwarf Double Crimson Sweet William.—Two years ago I found a large plant of this in an old garden, and from the cuttings taken from it I have now a most effective border to two long Rose-beds. This Sweet William is quite dwarf; the foliage makes a cushion of green, and the rich double crimson flowers only grow 5 inches or 6 inches high. It lasts a long time in flower, and should make a most useful plant for the rockery or for edging beds or borders. I would be glad to know if it is uncommon?—(Mrs.) F. E. LLOYD, Croghan House, County Roscommon.

Roses Excelsa and Crimson Rambler.—As these two Roses flower almost at the same time, one is tempted to refrain from adding the first-named, as, of course, Crimson Rambler is established in nearly every garden. But while I wish to be fair to our old friend, I must say there is no comparison as to its usefulness. While we have perhaps a little more brilliant colouring in Crimson Rambler, it is minus the elegant growth and beautiful foliage of Excelsa. It is one of the best of our crimson weepers—certainly a great rival to Hiawatha and Delight; and while I think even Excelsa may be eclipsed by Mr. Turner's Coronation, I have yet to prove it outdoors. I have Excelsa, which has made quite a small arbour in two years. It is a very rapid grower, and pays well for being spread out as much as possible.—P.

Exhibiting Daffodils.—Mr. Jacob certainly has put in another "word"; he owns it is a hard word, and I had to refer to the dictionary to find a meaning. "Mix" is clear enough, but "mycetic." Well, all I can find is "mycetes," which means "a genus of American monkeys, commonly called 'the howlers' from the loud sounds of their voices," so I take it to mean a sort of mixture of howling monkeys. Oh! Mr. Jacob, how can you use such expressions when talking about our lovely Daffodils! Really, I am quite shocked. But seriously, to try to follow Mr. Jacob's meaning: he says that the show flower and the garden flower are two distinct things, to be treated differently and to be thought of differently; that we are muddling things up, that there are flowers which are right either way,

the lucky dogs (monkeys, surely), these "mixomyctic" flowers, which he says are neither fish, flesh, fowl nor good red herring. Really, my poor brain begins to whirl. But to return to the point. What we want, as Mr. Jacob says, is a National Daffodil Society, but it must be "National" in the true sense of the word and exist to encourage the sort of flower that is wanted by the public, and not be a kind of mutual admiration society of so-called true florists. I myself sincerely hope the Daffodil will never enter the select circle of the "florists' flowers." I am delighted to hear that experience has taught "A Small Exhibitor" that faking is safe to be penalised in competitive classes. I take off my hat to those judges.—W. A. WATTS. [Myxomyctes is a genus of slime fungi that were at one time classed as animals, but are now regarded as plants. The slime fungus that causes finger-and-toe disease of cabbages belongs to the family.—Ed.]

Privet Flowering Freely.—I have never seen Privet so well flowered as it is this year. The variety angustifolium has very large heads of blossom where the plants have been allowed to grow uncut for several years past. Of course, the wood was exceptionally well ripened last year, which accounts for the exceptional freedom of flowering this year. On some of the railway banks near Bournemouth, the Privet bushes—many of them large ones—are white with blossom. In other parts of this neighbourhood the Enonymus is also flowering well.—G. G.

Sweet Cherries.—These are fine, large, and of good flavour this year. When well protected by fine-meshed netting they can be kept for a long time, and if the sun is extra powerful, a thin shading of canvas or tiffany should also be used in order to prolong the season. I have kept them for the Scottish season in this manner. Among some of the best are Bigarreau de Schrecken, Bigarreau Napoleon, Early Rivers, Frogmore Early Bigarreau, Governor Wood, Geant de Hedelfinger and Black Eagle. For kitchen use May Duke and Morello are two of the best.—W. A. COOK, Leonardslee Gardens.

Erigeron Asa Gray.—Under this name there is being cultivated a very distinct Erigeron, about whose origin one would like to know more, as it seems, for the present, to be wrapped in obscurity. If one dared venture upon a conjecture, it is that it may be a hybrid of Erigeron aurantiacus. It is not to be confounded with the plant sold as *E. salsuginosus* of Asa Gray, which is quite a different thing. The one under notice grows almost a foot high in ordinary soils, and has flowers hardly the size of those of *E. glaucus*, but of a real biscuit colour and with an orange centre. The description of the colour may not appear attractive, but the plant is quite a pleasing one, especially when it has attained some size.—S. ARNOTT.

Rustic Trellises as Wind-breaks.—Very recently a gentleman pointed out to me some Peas growing at the edge of a cliff 100 feet high. The only protection the Peas and other crops received was afforded by a rustic trellis about five feet high. At times the gales were very strong, but the Peas and other crops were quite undamaged and looked very well indeed. Not far away, however, a wall was built as a protection for garden crops against the strong winds from the sea, but the crops were badly damaged through the wind sweeping over the top of the wall in a cold current. The rough trellis in the first-named garden broke the force

of the wind, and there was no concentrated current blowing directly on the plants. I remember, some years ago, a hedge of Laurustinuses forming the boundary fence above a low stone wall of a garden near the sea. There the gales were exceptionally strong at times, and the plants suffered considerably. A gentleman recommended the owner to fix wire-netting of half-inch mesh about two feet away from the bushes or hedge. This was done, and in about two years' time the Laurustinuses had regained their normal good health, were growing freely and producing plentifully nice, young shoots. Unless one sees the good results, one can scarcely believe that such protection will be as beneficial as it is.—B.

The Double Standard in the Sweet Pea.—In view of the editorial remarks appended to my note on page 362 of last week's issue, I would like to add another word. Our esteemed Editor remarks that the National Sweet Pea Committee "recognised that the double standard had come to stay, and provided three classes for it, but rigidly, and we think rightly, excluded it from the other classes." If, however, the society recognised that the "double standard had come to stay," its present action is a little strange, since what it excludes to-day it must perforce, in such circumstances, admit to-morrow. Curiously, too—and very curiously—in those classes where, according to schedule, the double standard was admissible, no adequate response was made; in one class, if my memory serves me aright, none at all; hence it would appear that the double standard was not so plentiful as it appeared from the disqualifications. One finds no fault with the National Sweet Pea Society for formulating a rule or specific condition and adhering to it. In view, however, of all the circumstances at the recent show, one might reasonably ask, Why did not the society adhere to its emphatically laid down rule as to the double standard to the bitter end? But it did not do so. For example, in the Sutton Cup Class the defaulters were all promptly disqualified, the result being that some comparatively inferior exhibits, but which conformed to the schedule, obtained prizes. That is quite a usual method of procedure where disqualification has taken place. Now, in Class 8, one of the classification set, and in the Burpee Cup Class, the whole host of competitors were disqualified owing to the presence of double standards, yet the judges immediately appended a card to the class card of the finer exhibits recommending these the prizes—in short, advising the committee to abrogate the rule applying to the double standard. Was it too much to expect that the committee should have sternly refused to follow such advice in the face of conditions so emphatically and prominently set forth, and to have said "No; we will award no prizes at all in these classes"? I suppose so, judging from the fact that the prizes were awarded on merit, and that, after all, the rule counted for naught. The above are good examples of "Guilty, with a strong recommendation to mercy"; but there was no mercy vouchsafed to the solitary exhibitor in the London County Class, who was disqualified outright, yet he had as much right to consideration as the rest, for his was no greater sin. To the minor lights in the Sweet Pea exhibition world it must be a little consoling to know that more than one of the National Sweet Pea Society's committee came to grief over the double standard clause, and of such one might of a surety say, "They have digged a pit, and have fallen into the midst of it themselves."—E. H. JENKINS.

Clematis montana.—The huge and beautiful specimen of the above plant shown in the photograph finds its home at The Gables, View Road, Highgate, N. As may be judged from the picture, it was a magnificent sight. It is the finest show the plant has ever made. Probably the thorough ripening of the wood by last year's brilliant sunshine may account for such a wealth of blossom. It is about thirty feet to thirty-five feet in height.—C. T.

Rose Conrad F. Meyer.—On page 338, issue July 6, "An Essex Reader" has a good word for this Rose. Your correspondent does not over-estimate the good qualities of the variety in question, as it is undoubtedly a very fine one. In a garden in a town on the South Coast I recently saw a very fine specimen trained to the trunk of a large Fir tree. The plant was flowering profusely the last week in June, and gave promise of doing so for many days more. The partial shade cast by the large tree seemed to suit the Rose very well, the flowers being very rich in colour.—Avon.

The Jungle Fungus.—A gentleman recently pointed out to a number of gardeners a border in his garden where he had failed to grow several Chestnut trees. Eventually he had the soil removed to a considerable depth and some distance around, and this revealed a lot of fungus, of which a culture was obtained, and it proved to be the jungle fungus (*Rosenaria necatrix*). The position was at the edge of a wood, and the fungus was traced for a considerable distance. After removing all that could be found, the soil was limed, a hole was again made, left open to the sun for three days, then coated with lime, and a plant put in. So far the specimen is doing well. This case, however, proves that there is a real danger from fungus where choice trees are grown, and that, before they are planted, it is advisable on the part of the cultivator to make sure that the soil is quite free from it.

Wistarias.—The fine illustration of the splendid Wistaria which appeared on page 355, issue July 13, reminds me of a collection of these plants at Clandon Park, Guildford, the country seat of the Earl of Onslow. In the centre of a sunk garden on the lawn some very tall, strong posts had been fixed to form an octagon, I believe, with a still taller central post. Chains connected all these posts, and some of the best varieties of Wistarias had been planted near each one when I saw these gardens a few years ago. When the whole of the structure is covered with branches and the flowers are fully developed, the effect will be most beautiful, though somewhat formal. The informal growth of the specimen shown in **THE GARDEN** adds very considerably to its beautiful appearance. It reminds me of a Honeysuckle

which I saw in a wood near the New Forest some time ago. The plant almost covered every branch of an Oak tree and depended gracefully from them, and, being well flowered, looked charming. Both Oak and Honeysuckle were in good condition. Near by another Honeysuckle had covered the trunk of a Pine tree to a height of about sixty feet.—G. G.

FORTHCOMING EVENTS.

July 30.—Royal Horticultural Society's Exhibition at Vincent Square. Lecture at 3 p.m. by Mr. Hooper on "The Pollination of Fruit Blossoms."



THE MOUNTAIN CLEMATIS (*C. MONTANA*), IN A LONDON GARDEN.

July 31.—Dinas Powis Flower Show. Llanelly Flower Show. Chesterfield Flower Show. Birmingham Carnation Show (two days). Burton-on-Trent Flower Show. Caterham Flower Show.

August 1.—Taunton Deane Flower Show. Merthyr Flower Show. Usk Flower Show. Roydon Flower Show.

August 2.—Perthshire Sweet Pea Show (two days). Huddersfield Horticultural Show (two days).

August 3.—Société Française d'Horticulture de Londres Meeting. Glasgow and West of Scotland Pansy Society's Meeting.

THE GREENHOUSE.

MIGNONETTE IN POTS.

HOW TO GROW PLANTS THROUGH THE WINTER.

THIS fragrant flower is greatly appreciated at all times when grown in the open borders, but it is especially liked when grown in flower-pots in the greenhouse or conservatory. Pot plants are usually had in flower during the spring months when blossoms are scarce. To obtain very strong plants, seeds must be sown

in July, and the resultant young plants grown on very steadily during the autumn and winter months. As wireworms are great enemies of Mignonette, the cultivator must be sure that the soil is quite free from them. Old fibrous loam is the best; use two parts of such, one part of leaf-soil, and one part of sand, rotted manure and old mortar rubble.

It is very important that the compost be sweet, and on this account I do not believe in sowing the seeds in their flowering pots, because the soil in bulk has to remain in the pots so long, and it often turns sour. Sow the seeds in pots $3\frac{1}{2}$ inches in diameter, dropping four or five seeds half an inch apart on the surface of the soil in each pot. The same kind of compost must be used both at the time of sowing the seeds and at the repotting later on, only when the latter work is done the compost should be in a rougher condition. Cover the seeds with fine soil, and place the pots in a cold frame with the lights well tilted above them. It is better to do this than to allow the plants to get saturated with rain-water occasionally. Gradually thin out the young plants to one in each pot. I have duly noted the condition of plants as grown in pots under similar treatment. Three, two and one Mignonette plant were, respectively, grown in pots, and all were very fine indeed, but the single plant made the best "pot." It was a superb specimen, branching out freely, and bearing long and well-formed spikes of blossoms. The point of the plant must be pinched out either when the specimen is quite young, so that the new side shoots may get strong before the

dull days of winter come, or the plant must not be pinched before the first week in January. Late autumn stopping results in the growth of weakly side shoots. Place the plants in $6\frac{1}{2}$ -inch pots in September, and remove them to a shelf in a greenhouse or conservatory in October or, at the latest, early in November. When there are plenty of roots in the large pots and the longer days come, feed the plants judiciously. They require plenty of light and air in fine weather. Machel, Victoria, Spiral, Perfection, Bismarck and Golden Queen are all beautiful varieties to grow. B.

THE KITCHEN GARDEN.

SEASONABLE NOTES ON VEGETABLES.

OUTDOOR TOMATOES.—Half a century ago Tomatoes were scarcely known in our gardens, while now it is the exception rather than the rule to find a place in which they are not represented either indoors or outdoors, and commonly they are in both. The cottager and the amateur regard them as necessities in the same way as they do Potatoes and Cabbages, though they cannot, of course, and would not if they could, allocate as much space to them. At the present time they are in excellent condition, and are making constant demands upon the time and attention of the grower. Water is required in abundance, and it is almost invariably wise to supplement it with weak liquid manure. The particular kind that is used is not of material importance, provided that a change of diet is arranged and it is never overdone. It is of paramount importance that all shoots springing in the axils of the leaves shall be rubbed out, and that no defoliation shall be done beyond what is absolutely necessary to admit light to the fruit.

Winter Greens.—The planting of Brussels Sprouts, Broccoli, Savoys and Kales must be continued as land falls vacant. With the single exception of Broccoli the plants demand a deep, thoroughly-cultivated soil that is in excellent heart, and no efforts must be spared to meet these requirements. Broccoli, however, that has to stand the winter is preferably planted on a firm base, and the soil should be made solid about the roots to encourage a sturdy, hardy growth. In rich, open ground the plants grow too rapidly, and become so soft that they succumb to the variable weather. A grubbed Strawberry-bed or a site that has carried a crop of autumn Onions is suitable, all weeds being removed, and planting done with a bar. The roots of occasional plants ought to be closely examined in case of an attack of gall weevil; if the knobs are seen, pinch or cut them off and draw the roots through a thick puddle of soot, lime and soil.

Sowing Lettuces.—It is the admirable rule in most gardens to sow Lettuces at frequent intervals, the quantities usually being rather small in preference to sowing big batches at protracted intervals, because splendid quality is thus practically assured. Now we shall soon have to be thinking about autumn and winter produce, and the site selected ought to be prepared ready for sowing immediately the most favourable time comes. A variety of the Hicks' Hardy White type should be chosen in the Cos section, and of the Stanstead Park group in the Cabbage section, as these stand splendidly and the quality from well-grown plants is first class.

Early Potatoes.—These were good and early this season, and most of them are now out of the ground. It is wise to remember that they do not store well; that is to say, they soon lose quality when they are lifted. The rule, then, should be to dig in small quantities for immediate use, as one thus secures the finest flavour. If tubers for seed next season are to be saved at home, only the best must be chosen for the purpose. This does not mean large ones; on the contrary, sets weighing about three ounces are the most serviceable, but they must be perfect in shape, according to the variety, and there must not, of course, be the slightest sign of disease. Varieties



CARPENTERIA CALIFORNICA, A SHRUB FOR A WARM POSITION.

which follow the earliest must be dug in succession, as they will still add considerably to their bulk if the weather is favourable and disease does not appear. Watch closely for it, and apply Bordeaux mixture the instant the first trace is discovered.

Peas and Beans.—To keep the Peas and Beans going now will demand incessant attention, especially on light soils. Watering at the roots and the application of liquid manure now and again are excellent, but the soil for a foot from the plants at least on each side of the rows must be kept open by frequent stirring or hoeing, or, what is better, have a thick mulching of manure. An evening hosing now and again will still prove decidedly beneficial.

H. J.

TREES AND SHRUBS.

A BEAUTIFUL FLOWERING SHRUB.

(CARPENTERIA CALIFORNICA.)

A NATIVE of the Sierra Nevada, California, this evergreen shrub, though hardy in most parts of the country, will be found to thrive and flower more satisfactorily when planted against a sunny south or west wall or some other similar position. The flowers are produced, three or four together, in clusters at the ends of the shoots; they are white and fragrant, about two inches or rather more across, with an attractive cluster of yellow stamens in the centre. The leaves are 3 inches to 4 inches long, broadly lanceolate, glossy green above, much lighter beneath. *Carpenteria californica* belongs to the Natural Order Saxifragaceæ, is figured in the *Botanical Magazine*, t. 6911, and has been in cultivation in this country rather more than thirty years. Fairly free in growth in light, sandy loam, with, for preference, a little peat and leaf-mould added, the subject of this note forms a pleasing evergreen bush of good size. A. O.

THE INDIAN HORSE CHESTNUT.

(ÆSCULUS INDICA.)

THOUGH first introduced into this country from Northern India more than sixty years ago, *Æsculus indica* has found little favour with planters. This is, presumably, because the tree is not quite so hardy as the majority of the Chestnut family. The behaviour of the tree, however, where it has been planted leads one to the conclusion that there is every hope of success, except in cold and bleak positions. The largest specimens are in Suffolk, two trees at Barton in that county being between sixty feet and seventy feet in height. There are several vigorous young trees at Kew, the tallest, which flowers annually and ripens seeds, being about twenty feet in height. In Northern India *Æsculus indica* is found growing at an elevation of 8,000 feet to 10,000 feet. Perhaps its greatest claim to recognition is the fact

that it flowers towards the end of June in a normal season, when the majority of the Horse Chestnuts have finished flowering.

There is a richness about the appearance of the Indian Horse Chestnut—the luxuriant, shining green foliage and the dainty colouring of the flowers—which readily distinguishes it from the other species. The leaflets are five to seven on a leaf, occasionally nine, the largest, generally the middle one, being sometimes a foot in length. The flowers are white, borne in a fairly closely arranged raceme; the two small upper petals are heavily blotched with yellow when opening, changing with age to orange red; the lower petals are tinged with pink.

THE FLOWER GARDEN.

FOXGLOVES FOR WOODLAND AND PLEASURE GROUNDS.

THE Foxglove (*Digitalis purpurea*) is such an easy plant to grow, and a fairly frequent inhabitant of our hedgerows and woods, that too often very little attention is given to it in gardens.

By years of careful selection we now possess a strain of Foxgloves in every way—colour, size of flower and height—vastly superior to the wild plant. The white flowers, often prettily spotted, form a pleasing contrast to the varying shades of pink, rose and rosy red. A pleasing advance of recent years is the yellow Foxglove, obtained by crossing *Digitalis purpurea* alba with presumably *D. ambigua*. The flowers may be described as buff or rich cream. One of the best strains of the yellow Foxglove is that catalogued by Messrs. Sutton as Giant Primrose. The careful selection and harvesting of seeds is so thoroughly done by seedsmen that even seeds of Foxgloves are offered in separate colours, a very large percentage of which come true.

The would-be grower can, if he wishes, purchase, instead of a packet of mixed seeds, white, rose or spotted varieties separately. A curious break or freak is that variously known as *monstrosa* or *gloxinaeflora*. In this plant, instead of the spike of flowers all being semi-pendent, the top or terminal one is upright in shape, like an inverted bell, and several times larger than the usual Foxglove flowers.

While there are very few places in a garden where the Foxglove will not grow in shade or sun, there are certain places in the pleasure grounds and woodland for which it is admirably adapted. The naturalising of Foxgloves in moist, open breaks in the woodland, made by cutting down trees or clearing away shrubs, is now undertaken in many places. A few plants thrusting up their heads in the shrubby borders, where space permits, between the shrubs, or a large group in the pleasure grounds, as is well shown in the illustration, deserves consideration. And what of the Foxglove for the small garden! It is one of the best plants for the shady north border, where so few plants are satisfactory, and it is often seen to advantage in odd corners, where the seeds may fall and come up with no attention among hardy Ferns.

There is very little more to be said about the cultivation of the Foxglove. To flower the following season the seeds should be sown from March to May; but when allowed to fall and come up unaided, the seeds are not ripe until July or August. Falling at this time the plants are not large enough to flower the following year; self-sown seeds thus are generally approaching two years old before flowering. Though spoken of as a biennial, the flowering Foxgloves often develop another growth from the base, which blossoms the succeeding year. As will be seen from the accompanying illustration, it is a free-flowering plant when properly treated.

A. O.

SWEET PEA TRIALS AT SUTTON GREEN.

FAVOURED with perfect weather, the National Sweet Pea Society held its outing to the Sutton Green (Guildford) trials on Thursday, July 11. The party was a representative one, and included two growers from California, who, conscious of their own failure with the Sweet Pea seed crop this year, viewed the very promising rows of Sweet Peas at Guildford with a certain amount of envy. It was generally agreed that the Sweet Peas had never before looked so well at Sutton Green, and Mr. Harry Foster, the trial superintendent, is to be complimented upon the success of this year's trials.

The all-pervading Sweet Pea disease, however, has made its presence felt, and this was particularly noticeable among the cream-coloured varieties.

New Varieties.—There is no new variety of outstanding merit, and no first-class certificates

in fours, sent by Mr. R. Bolton; and Bertram Deal, deep lavender, with a strong inclination to throw double standards, sent by Mr. William Deal. With such a multiplicity of varieties as seen at the trials, it is difficult to keep apace with them, and while there were many good novelties at Sutton Green, the following were, in our opinion, remarkably good: Constance Hinton, the largest white, but just spoilt by a pink tint in some flowers; Corene, a true variety of salmon shade; Stirling Stent, a fine salmon variety which improves with age, the flowers being remarkably fine, even without shading; Thomas Stevenson, a first-rate orange scarlet variety, good from all sources from which it was sent for trial; Red Star, a grand scarlet; Royal Scarlet, also good, but not quite fixed; Scarlet Emperor, which in our opinion is the best of all the scarlets; Edith Taylor, salmon rose, one of the best [of Mr. Holmes' raising; and Spencer Blue, synonymous with Southcote



FOXGLOVES CLUSTERED IN A WOODLAND GLADE.

have been awarded this year. Nevertheless, there are a few novelties worthy of special mention, and these, no doubt, will become favourites when better known. Honours had been awarded to new varieties a day or so previous to the outing, and no fault was found with the awards made. Two varieties given awards of merit are held in reserve for the silver medal. They are R. F. Felton, a lovely mauve, and Lady Miller, a beautiful salmon, with a faint tint of bronze in the standard. It is a variety of great promise for table decoration, and will also be telling in the hands of the exhibitor. Both of the varieties are apparently true, and both are sent by that successful raiser, Mr. A. Malcolm. Other varieties to obtain awards of merit are King White, a very handsome white variety, from Messrs. A. Dickson and Sons; Decorator, a very fine variety sent from three different growers, one of whom describes it as rose pink, another as crushed strawberry, while the cautious third has not ventured upon a description at all; Agricola, soft lavender with a faint flush of pink, and producing its flowers

Blue, quite true and of lovely colour. The outing to the society's northern trials at the Burbage Experimental Station, near Hinckley, took place on the day following. A duplication of the Sutton Green trials is held at Burbage, where Major C. C. Hurst, F.L.S., is the trial superintendent. The awards to new varieties are based upon the results of both trials.

SWEET PEA JOTTINGS.

Growing Under Glass.—One of the minor things that struck me at the International Show was the marked difference between the same variety when grown under glass and when cut from the open. There were a couple of sorts for comparison on Messrs. E. W. King and Co.'s stand. I do not think I ever quite realised as I did then what a contrast there is between the results of the two, and how a covering of glass somehow puts a touch of beauty and refinement in the colouring that is wanting without it. It is to the Sweet Pea as the

glove is to the lady's hand. [Query—Ed.] Since I came home it so happens I have seen the same thing in my own garden. My pot plants are much later than usual this year, as I did not sow until the very end of February, and some of them have hung on flowering until I had the same varieties out of doors. It was miserable, damp weather all the ten days when they were first opening, and they had the greenish edge and pinched look about the standards, so that the comparison was still more in favour of those under the glass roof. My practical suggestion is that it is well worth while anyone who has the necessary head-room of 7 feet or 8 feet in a cool, and afterwards, when May comes in, in a cold, greenhouse having a dozen pots of Sweet Peas to just forestall the open-air ones. There is a minimum of trouble while growing, and the lengthening of the season and the exquisite delicacy of the blooms well repay what little there is.

Scent.—I shake my head sadly over some of the defects of the much-vaunted monstrosities that nowadays do duty for flowers. I remember when I was in Mogador, many years ago, my Jewish interpreter telling me that his young fellow country-men when they were choosing a girl for a wife always liked "plenty of her," and that a slim, refined-looking one had nothing like such a good chance. Such was their taste. Is it not the same with Sweet Pea lovers in the present year of King George V.? They like "plenty of her" in the flower they affect, and that is all. Such a thing as scent is hardly taken any notice of in the awards of to-day. What have our noses done to merit such treatment? They never have all the opportunities of enjoyment that their friends "the eyes" have. Is it not a bit hard to take some of that little away? I pleased my old nose hugely this year. It has since told me it was the greatest Sweet Pea treat it had had for ages, and it has put it down as one of its yearly requirements. This is the "memo.": Buy a packet or two of Mother-o'-Pearl—*extra* sweet-scented, an old-fashioned silvery grey flower; the sweetest Sweet Pea.

The Doctor's Sweet Peas.—I saw Dr. Phillips' Sweet Peas about a fortnight ago. They all looked the picture of robust health, and I felt sure he would have a good season. Since then I see they have done well at Hanley and in London. But what I really wanted to say was that I was especially charmed with Queen of Norway, Rose Diamond and Doris Usher. They are three lovely shades for house decoration. A word, too, for our well-tried friend Clara Curtis. As grown at Malpas it was grand. It is very beautiful in vases with some nice, fresh green foliage of its own. I say to myself, Suppose that it was the buttercup yellow

we are expecting, would it be as pleasing? Would it be as uncommon? We have so many strong yellow flowers and comparatively few pale primrose. But, then, everyone of us is a fearful novelty-hunter at heart. JOSEPH JACOB.

[We fully endorse Mr. Jacob's remarks about the desirability of retaining the fragrance and refinement of Sweet Peas. A Sweet Pea without fragrance is not worthy of the name, and we hope the National Sweet Pea Society will not encourage such flowers.—ED.]

SEASONABLE NOTES ON AURICULAS.

Alpine Varieties.—Several weeks ago I ventured to give the names of a few alpine Auriculas which

Teviotdale, Ullswater and Mildred Jay are all excellent. Admiration is very pretty, if good, but the centre is sometimes weak, and I do not like it so well as I did in former years. Dazzle is wonderfully bright in colour, but has a nasty trick of burning in the body colour just outside the centre. There are more yellow-centred sorts than white and cream, but the prettiest, to my mind, are Claude Halers, Duke of York, Dean Hole (small, but very bright), Ettrick, Firefly, Flora McIvor, Marie Corelli (late in flowering, handsome), Mrs. Markham, Perfection, Rosy Morn, The Bride and Uranie." I am delighted to commend this excellent selection, many of which I have, and can therefore personally commend. If other readers

will favour with their pet selections, I shall be pleased to embody them in this column from time to time as opportunity permits; but my notes have to be written some time in advance of publication, so those sending must not be disappointed if they do not see their lists in the issue of THE GARDEN published the same week as they have posted their letter.

Sun and Shade.—Auriculas have a decided partiality for sun just as they have for shade. Their special preference is for sun in the morning and evening, and shade during the hottest part of the day. It is therefore necessary so to arrange the frame or the house devoted to them that these requirements are met, as it means so much to the maintained excellence of health and satisfactory progress. It is essential, too, that the atmosphere of the structure shall be kept sweet and cool by ample ventilation; stagnation will lead to trouble and worry with these plants quicker than almost anything else, as far as my experience teaches me. With a view to encouraging admirable growth, the soil must be moist; to make it sodden will lead to the rotting of many of the most valuable roots, while to allow it to become as dry as dust will mean that roots will shrivel up. The happy medium is the thing for which to strive.

Show Varieties in Borders.—Although the show Auriculas are equally as hardy as the alpine varieties, they are not usually grown in the open garden, because the exquisite colours are so extremely liable to be marred by the weather, much more so, in fact, than the alpine flowers. I should not grow the choicest varieties of either section out of doors all the year round, as many would almost certainly perish in the winter months. Those who have plants upon which they set real store, and which they are therefore anxious to keep for flowering next season, will be well advised to lift and pot them. The operation will not demand much trouble, and the time will wholly depend upon the number to be handled. Precisely as in ordinary



RODGERSIA PINNATA, A HANDSOME PLANT FOR ROCK GARDEN OR BORDER. (See page 379.)

were favourites of mine and grew well with me, but the selection was not sufficiently modern to please one or two of my readers. Now, Mr. J. L. Gibson most kindly sends me an up-to-date list, and this I gladly give here, thanking him on my own behalf, as well as on that of the many readers of THE GARDEN, for the trouble and care that he has taken in the matter. Mr. Gibson says: "I am very pleased to send a list of alpine Auriculas as requested. The varieties are not selected because of their exhibition virtues, but for their beauty, size of pip and truss, and generally for the great pleasure they will give their cultivators. Among white and cream centred varieties, Bluebell, Argus, Janet, Miss Berkeley, Mrs. Douglas, Phyllis Douglas,

repotting, pots that are deep in proportion to their diameter ought to be given the preference, and the soil may advantageously be practically all sound fibrous loam. If the clumps are large, they must be divided according to judgment or necessity. When the work is finished, put them in the greenhouse or frame, and see that the utmost care is exercised in watering, especially during the first two or three weeks—until, in fact, they have become perfectly accustomed to the changed conditions.

F. R.

THE ROCK AND WATER GARDEN.

A BOLD PLANT FOR THE ROCK GARDEN.

(RODGERSIA PINNATA.)

UNTIL within recent years *Rodgersia* was regarded as a monotypic genus, and, indeed, but one species, *R. podophylla*, was seen or known in cultivation. Now, however, thanks mainly, if not entirely, to the unceasing enterprise of Messrs. James Veitch and Sons, several new and important species and varieties have been added, each and all alike valuable to the garden, where, whether in flower or in the fulness of their leaf beauty, they are without a rival.

Regarded generally, the species are reputedly of a moisture-loving nature, though there are exceptions, and certainly the finest solitary example known to the writer was a specimen clump, about six feet across, in an open border in the sun-kissed garden of the late Rev. H. Ewbank at Ryde many years ago. Not only did the plant grow and thrive in ordinary loamy soil, but also put on late in the summer the fine rich leaf colouring that rendered a plant of such distinction a feature in the garden. At other times one or other of the more recently-introduced kinds are seen in grand condition in full sun where a never-failing water supply is within reach of the root-fibres. For preference, however, I should prefer a generous mixture of loam, peat and leaf-soil in about equal parts, with an addition of one-fifth well-decayed manure, plenty of root moisture and a sunny position, as well as one sheltered from north and east.

The plant in the body of the picture is the more recently-introduced *R. pinnata*, whose flowers are of salmony pink tone, and of which no description is required in the circumstances. There is also a pure white variety of this plant, which is highly desirable.

R. æsculifolia has large, erect panicles of pinky white, fragrant flowers, and handsome bronzy green leaves after the style of the Horse Chestnut; hence the specific name. Another remarkable species is *R. tabuliformis*; this is characterised by large peltate leaves and inflorescences of creamy white flowers. All are natives of Japan or Western China, and perfectly hardy in this country.

E. H. JENKINS.

THE ROSE GARDEN.

ROSES WITH BAD HABITS.

PERHAPS it is natural for raisers when sending out a new Rose to extol all its good points and to be very blind to its faults. Shakespeare says if we all had our deserts, who would escape a whipping? and perhaps some fault could be found in every Rose grown. Now, I do not propose to make this a complete list, because I would invite the views to be given by some of the readers of THE GARDEN. Neither do I propose to specially condemn a Rose because it is scentless, although in the opinion of many, myself included, this is a very bad fault or defect which should make one hesitate before they plant it. I think I cannot do better than commence with a Rose that usually takes the highest position as a show bloom, and that is

Bessie Brown. I am constantly hearing complaints against this Rose, and it is generally that

Avoca, beautiful at times, but woefully thin, and it has also a tendency to turn blue. In like manner

His Majesty is very much over-praised. Now and then one obtains a fine flower, but in an amateur's garden it would be a very poor thing, and not a patch upon some of the good old Hybrid Perpetuals like *Comte de Raimbaud*.

Konigin Carola is perhaps one of the best of pink Roses, its blooms being of huge size and the petals very handsome, but the split centre of nearly every bloom spoils it very much indeed, so much so that one can rarely obtain a bloom for show.

J. B. Clark.—One great fault of this Rose is that it grows so strongly, and one is troubled to know what to do with it. The best method of culture is to treat it as a free bush; but how can the small amateur do this? I would suggest planting it against a fence or use it as a pillar Rose. Then

Killarney, what a beauty she is, but how sadly prone to mildew, so much so that the plants are



A BEAUTIFUL BED OF ROSE JOSEPH LOWE.

it fails to open well and its head hangs down as if the Rose were ashamed of its own loveliness. I know exhibitors do not object to this fault, because they maintain that it helps to keep the bloom clean; but give me a Rose that is held boldly upward, displaying its beauty to all who pass by.

Souvenir de Pierre Notting and **Mme. Constant Soupert** are two lovely gems; but who can recommend them to the novice, for scarcely a bloom is produced devoid of a blemish generally upon the outer petals? In my opinion it spoils the beauty of these two Roses so much that I cannot recommend them to anyone, except to those who exhibit.

Betty is, to me, exceedingly uninteresting apart from the bud, except perhaps in a very cool season or in autumn. Now, if this Rose had the power to hold its open blooms as do *G. Nabonnand* and *Peace*, it would be a fine thing. But the flowers are far too thin and fleeting for the amateur whose space is limited. Then there is

often a sheet of white. Of course, this can be checked by the use of *Cyllin Soft Soap*, if applied in good time; but one could wish it were mildew-proof like *A. R. Goodwin*.

P.

(To be continued.)

ROSE JOSEPH LOWE.

This exquisite Rose combines in its bloom all the good points of *Mrs. W. J. Grant* as far as size and shapely petal are concerned, and also the lovely colouring of *Mme. Abel Chatenay*. It is, in fact, one of our best bedding pink Roses; its freedom of blooming, erect growth and the beautiful form of the flowers are perhaps unequalled by any other pink variety grown.

Being a sport of *Mrs. W. J. Grant*, we cannot look for great vigour, for we all know how the latter fails us at times; but given a good depth of soil and hard pruning, *Joseph Lowe* should be a success in most gardens. I would caution the grower to earth up the plants in

winter, for it is not one of our hardiest kinds, although by taking this precaution one need not fear any ordinary winter. P.

LAYERING MOSS ROSES.

Moss ROSES are very charming in the garden; even isolated plants look well and prove attractive; but the best effect is produced when whole beds are devoted to these plants. The varieties may be mixed, but beds of distinct colours are the best. For every purpose Moss Roses are favourites, and few can excel them as button-hole flowers. The plants must be close pruned and well fed. As a general rule, they do not receive this treatment, very little pruning being done and but little manure given. When hard pruned some strong basal shoots grow, and these are good for layering; few real sucker shoots grow. Shoots layered now should be allowed to remain covered until next autumn twelve months, as it is rarely that the shoots root sufficiently to be removed the following winter. Some good loam, a small quantity of sweet leaf-soil, and plenty of coarse sand or road grit form a nice layering compost. More fibrous roots, however, will grow if some small pebbles are mixed with the compost at the rate of one peck to two bushels. The shoots must be held securely in position by strong wire pegs, and during the summer-time the compost must be kept in a consistent state of moisture. Amateurs who wish to form a collection of Moss Roses should plant the following six varieties first, namely, Baron de Wasenær (light crimson), Blanche Moreau (pure white), Old Pink (pale rose, full and well mossed), Celina (deep crimson), Zenobia (satin rose, full, well mossed) and Deuil de Paul Fontaine (crimson, well mossed, a very strong grower, looks well on a low trellis). SHAMROCK.



PAVED ROSE GARDEN AT ISLAND, STEEP, PETERSFIELD.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Nephrolepis exaltata muscosa.—An American sport from N. e. superbissima, whose chief characteristics are firmness, dwarfness and great density. The plant is dwarf and compact, the fronds being very thickly set. It is quite distinct even among the many that have preceded it. From Messrs. H. B. May and Sons, Edmonton.

Plagianthus Lyallii.—This white-flowered New Zealand shrub has been doing uncommonly well this year. It is a plant of great beauty when the drooping flowers on slender pedicels are seen in such abundance as presented. Exhibited by Messrs. Robert Veitch and Sons, Exeter.

Cattleya Warscewiczii alba Firmin Lambeau.—We had no opportunity of seeing this remarkable plant, which was early removed from the hall, but the fact that, in addition to a first-class certificate, the committee recommended that it be awarded a gold medal is the best proof of its unique character and excellence. It was exhibited by M. Lambeau, Brussels.

AWARDS OF MERIT.

Odontoglossum Epicaste (O. Clytie × O. crispum).—The flowers are of a blackish maroon, distinctly bordered with purplish mauve. It is very distinct.

Zygopetalum Brewii (Z. Perrenoudii × Z. rostratum).—Sepals and petals greenish, lip blotched reddish purple and broadly margined with white. These were exhibited by Messrs. Charlesworth and Co., Hayward's Heath.

Patrinia palmata.—Quite a remarkable and interesting novelty from Japan. The plant is about

profusely in a terminal head. It is a highly-attractive subject of distinctive colouring, and merits general cultivation. A splendid basket of plants a foot high was exhibited by Mr. Bain, gardener to Sir Trevor Lawrence, Bart., Dorking.

Astilbe Rhenania.—The flowers of this variety are of rosy pink colouring, with a strong suspicion of electric blue at the tips of the sepals. From Mr. Profittlich, Twickenham.

Nymphæa formosa.—A fine Marliac hybrid Water Lily, with handsome flowers coloured pale rose with deep yellow centres.

Nymphæa Attraction.—Another Marliac hybrid of handsome proportions. The flowers are coloured deep red, shading to rose towards the edges. This fine pair of Water Lilies came from Mr. J. Hudson, gardener to Mr. Leopold de Rothschild, Gunnersbury.

Gladiolus primulinus hybrids, to be known as the "Lang-Prim" hybrids, and which embrace shades of rose, salmon and yellow. Award of merit for the strain. From Messrs. J. Kelway and Son, Langport.

NEW FRUIT.

Peach Royal Charlotte.—An award of merit and cultural commendation were given this variety, of which the kernels were the only evidence remaining. From Sir Trevor Lawrence, Bart., Dorking (gardener, Mr. W. Bain).

All the foregoing were shown before the Royal Horticultural Society on the 16th inst., when the awards were made.

NOTES ON GARDEN DESIGN.

Nor the least notable feature in the re-birth of interest in garden affairs during the last twenty years is the attention given to right design as

well as to cultural success. The formal garden has come into its own again after long languishing in contempt. While the broad principles which govern its lay-out are generally accepted, extravagance has sometimes been shown in their application. It is therefore proposed to illustrate frequently in THE GARDEN such features as steps, paved parterres, pools, pergolas, &c., which are of unquestioned merit. The accompanying photograph shows the paved Rose garden at Island, Steep, Petersfield, designed by Messrs. Unsworth and Inigo Triggs. The latter is well known for his fine books on garden design, and we are entitled, therefore, to expect interesting work from him. The paved walks are so contrived that every Rose can be reached dry-shod without crossing grass. In the middle is a small, round pool, which serves to focus the design. The paving is laid "crazy fashion," and accords pleasantly with the dry-stone retaining walls which surround the sunk portion of the garden.

Crossandra undulæfolia.—A very beautiful and showy Acanthad from the East Indies introduced by the late Mr. William Bull, and distributed by him in 1881. Allied to the Aphelandras, the plant requires a stove temperature. It is of subshrubby character, with dark olive green, slightly-undulated and strongly-ribbed leaves, and bears its brilliant salmon orange three-lobed flowers

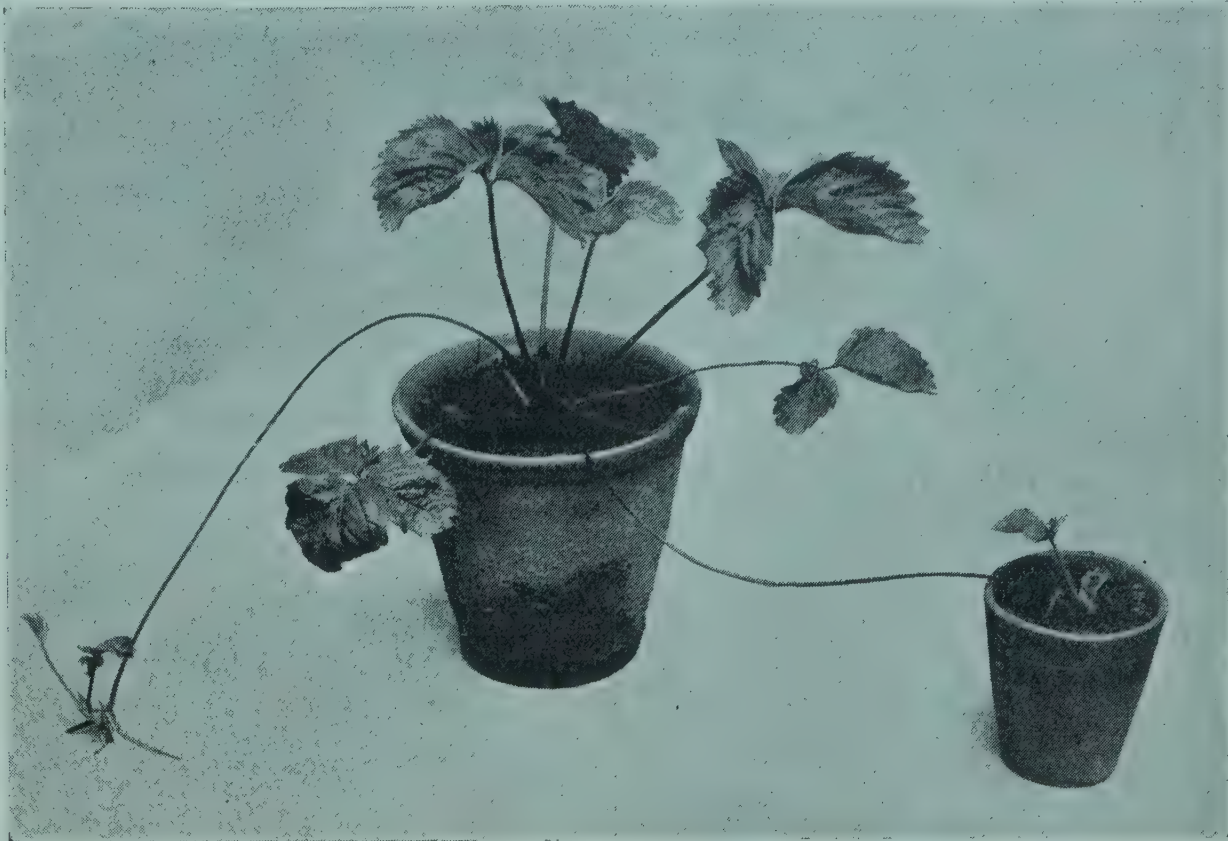
L. W.

GARDENING FOR BEGINNERS.

THE LAYERING AND PLANTING OF STRAWBERRIES.

THE cultivator of the Strawberry reaps a quick return for his labour. Few kinds of fruit entail less labour than does the Strawberry, but good work must be done at planting-time, and strong plants put in if the best crops of fruit are to be realised.

Layering.—Although a strong plant yields many runners suitable for layering, it is not advisable to layer more than one on each runner, and that should be the one nearest the parent plant, all others being discarded. From three to six plants may be raised from each parent plant. The necessary runners must be layered as early as possible, so that the young plants can be put out in their permanent quarters and get well established before the winter months come. Plants so treated will bear a good crop of fruit the following year, and much earlier than those planted late in the season. The runners may be layered in small pots or in squares of turves. Fig. 1 shows an old plant in a pot which has produced two runners, one of which is shown layered in a small pot. Old plants in beds produce layers in this way. The compost must be good. Fibrous loam, two parts; leaf-soil, one part; rotted manure, passed through a 1-inch-meshed sieve, one part; with a small quantity



1.—OLD PLANT IN POT WITH RUNNERS.



2.—LAYER ROOTED READY FOR PLANTING.

of sand added, will form a suitable compost. Peg down or place a stone on each runner in the pots. The runners on border plants must be layered in a similar way. Fig. 2 shows a strong-rooted layer ready for planting.

The Position for the New Bed.—This must be an open one for the main crop, away from tall trees or buildings. For very early cropping a few rows of plants may be put out on a sheltered border facing the south.

Preparing the Ground.—In every instance where young plants are to be put out it is essential that they be planted in deeply-dug ground. At this season the soil may be deeply trenched, and made moderately firm again by treading in the short space of two days, because the soil is not too moist. A naturally poor soil must be enriched by the addition of some well-rotted manure, and this should be supplemented by top-dressings of manure after the planting is done. Trench the soil two spits deep—twice the depth of the spade—and, in addition, fork up the subsoil, but leave it below. All fairly large lumps of soil must be broken up, and

for this purpose a garden fork will be found very useful. A rich soil need not be manured when dug; the top-dressings will be sufficient.

Planting.—Early planting is advisable, and so no time should be lost in getting the rooted layers put out in their fruiting quarters; but it is a good plan to first place the young plants in the pots on the north side of a wall or fence for three days when severed from the parent plants. If given such shelter and syringed twice daily they will receive no check to growth. A Strawberry plant is at its best the second year after planting. Renewal is generally advisable at the end of three

years. In many cases valuable space is wasted owing to the young plants being put out too far apart. The strong-growing varieties should be planted 2 feet apart each way; the varieties with smaller leaves and a less robust habit will do well at a distance of 20 inches each way. One hour prior to planting thoroughly water the young plants in the pots. Fig. 3 shows on the left a plant with cramped roots. This is a bad way to plant. On the right a plant with the roots spread out is depicted, and the

arrow indicates the right depth to plant. This is the correct way. In planting, a hand-trowel should be used. The hole must be made large enough to contain the roots without cramping; the crown of the plant must be above the soil-level, and the soil should be firmly pressed round the roots with the hands. The greatest care should be taken to prevent soil getting into the hearts of the young plants; if it does, growth is severely checked and the plant may be killed outright. Give water and mulch the surface with very short, well-decayed manure, if obtainable.

G. G.



3.—ON THE LEFT, PLANT WITH CRAMPED ROOTS—BAD WAY TO PLANT. ON THE RIGHT, ROOTS SPREAD OUT. ARROW INDICATES DEPTH TO PLANT.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

The Summer Bedding.—The generally dull, damp weather we experienced greatly helped the various subjects after planting. At the time of writing we are having a spell of warm weather, and copious supplies of water overhead with a rosed can should be given the beds in the evening. Keep the various subjects tied up as growth is made, and the Dutch hoe going where space permits, as this is beneficial to growth, and also adds to the attractiveness. Faded flowers should also be removed weekly.

Violets.—These, too, have made good growth, and now should be frequently Dutch-hoed; also cut off any runners from the plants. A dusting of soot over the ground on showery mornings will prove helpful, as will some patent fertiliser. Damp the plants over well on warm evenings; this will help growth and also preserve it from attacks of red spider.

The Rose Garden.—Keep the plants in the beds as attractive as possible by removing the faded blooms, aerating the surface soil and keeping the ground free from weeds. Plenty of water at the roots in dry weather and syringings overhead will keep the foliage clean and do much to ward off attacks of mildew. Should the latter enemy prove troublesome, the foliage should either be syringed with a good specific or the foliage dusted with flowers of sulphur, using that known as black, as it is not nearly so conspicuous.

Climbing Roses.—The climbers, as they pass out of flower, may be given a thorough syringing with a good insecticide after having lessened some of the growths. There is nothing gained by allowing them to become crowded and tied in one on top of the other, so thin out liberally the oldest wood, leaving, of course, sufficient young wood to cover and thoroughly mature.

The Hardy Fruit Garden.

Raspberries.—After the fruits are cleared from the bushes, remove the nets and cut out from the base the old fruiting canes to admit light and air to the young growths. Keep the ground free from weeds around them, and loosen with the hoe.

Strawberries.—The beds when cleared of the fruits and no further runners are required should be overhauled, the runners cut off, and any damaged leaves and rubbish cleared away.

Peaches and Nectarines out of doors, in order to keep the foliage in a healthy condition, must be well syringed, and heavy waterings given at the roots. The foliage should be kept tied in as neatly and straightly as possible to the old wood. When the fruits have finished stoning, the crop, if too thick, must be thinned out to the requisite number and exposed to the light and air, and the use of insecticide washes abandoned, otherwise the fruits will become stained and unfit for dessert.

The Kitchen Garden.

Runner Beans.—Every encouragement should be afforded these to crop freely, and if the weather is dry, heavily water and see that the ground is protected with a heavy mulch. The growths may be regulated and weakly shoots thinned out if too thick, and the plants will enjoy a syringing after hot days. When picking, select those that are ready as near as possible. If required for exhibition, the clusters of young Beans should be judiciously thinned and marked accordingly.

Dwarf Beans.—Where one has the convenience of a cold frame or two, a sowing of the above made now will, with a little care and attention, provide a dish or two when the Runners and those out of doors are past. Draw wide drills about a yard apart and sow a double row thinly, as there is nothing gained by overcrowding, and the plants may be thinned again. Frames that have done for Potatoes will need but little extra attention, except the addition of a little Mushroom-bed manure. Keep well damped, admit abundance of air, and as soon as germinated keep a sharp look-out for slugs. Dust with soot occasionally.

Plants Under Glass.

Stocks.—One or two sowings made now will produce good flowering plants for the embellishment of the greenhouse next spring. The plants from the time they germinate must never be

coddled, but be grown on quite coolly to make sturdy plants. Sow the seed in a box or pan, or a pinch of seed can be sown in the centre of a 3-inch pot, and the seedlings thinned to the best plant. The young plants should be stood on a cool ash bottom and out of bright sunshine, and be carefully watered and kept syringed. The second sowing may be made towards the end of next month.

Mimosa pudica.—The Sensitive Plant is one of the most interesting plants for the greenhouse, easily raised from seed, and nice plants may be had in 5-inch pots. Until the plants get sufficiently large they may be accommodated in a cold frame. Water carefully until the roots are active, when waterings once a week or so with diluted liquid manure will greatly assist them.

Eucalyptus globulus.—This is a fine plant for room and decorative work generally. Plants the pots of which are full of root must be fed liberally. Clay's Fertilizer is an excellent manure for such subjects, applied alternately with liquid manure. Pot on the young plants that were raised this season as becomes necessary.

Cucumbers.—At this season these require constant attention to the regulating and thinning of the growth, otherwise it will soon get congested. Apply top-dressings to the bed frequently, and water copiously, using stimulants freely. The growths must be kept stopped at two joints beyond the fruits. Keep the foliage thoroughly well syringed, and if spider is in evidence, syringe late in the evening. Sow for another crop.

Tomatoes.—These are bearing profusely, and will need abundance of water and feeding. When the plants have reached their limit, stop the leading growth, and, if necessary, thin the foliage judiciously. Another sowing may now be made for supplies at a later date.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Carnations.—By all means endeavour to finish layering within the current week.

Dahlias.—Slips from near the collar of the plants will strike root if placed where the cuttings are kept from flagging. Much attention will be needed to keep strong-growing plants securely tied, and to thin the growths so that they do not become overcrowded a few weeks later. By timely attention very much unnecessary labour afterwards is saved.

Starworts.—Any of the tall-growing midseason sorts that are growing too tall may be safely stopped. They will bloom slightly later, but the plants will give a denser mass of colour. It is, of course, essential to discriminate, those of the *Novæ-Angliæ* section being best left to Nature, and Climax also, on account of its late flowering in the North.

Rose-beds.—The practice of planting an undergrowth among Roses sometimes leads to ridiculous results through the carpeting plants overtopping the Roses. This should not be, and, before it is evident, cutting back, thinning, or pinching should be pursued to preserve the Roses in the superior position. I have seen Lavender very effectively used; but the same colour may be had by using *Nepeta Mussinii*, and so with other flowers.

The Rock Garden.

Cyclamen.—The early-flowered species has now matured seeds, which may be sown at once in pots or boxes, to be placed in a cold frame. The seeds sometimes germinate freely round the mother plants, but better results are obtained if they are sown as above.

Double Sweet William.—The dwarf hybrid, presently a sheet of crimson, sometimes dies off quite unexpectedly. Where this occurs it is worth while to relieve portions of the clumps of their flowers, scattering among them some light compost, and watering it in if the weather continues dry. From these portions splendid self-rooted cuttings are to be had in September.

Orchis foliosa.—This has been very fine in a shaded moist corner, and, now that it is going off, the spikes should be removed lest seed should form and the plants be weakened for another year.

Arenaria balearica.—Nothing can be prettier than star-gemmed masses of this lowly alpine, but

it becomes a nuisance when it is permitted to overrun every bit of stone within its reach. This is a suitable time to reduce it to proper proportions now that it has done flowering, pieces being pulled away here and there, and not by any means trimmed. It is a most useful plant to cover otherwise impossible portions of walls.

The Vegetable Garden.

Onions.—Sow seed at once for plants to stand over the winter, either for transplanting or to draw young.

Scotch Kale.—Plant out immediately the young plants are large enough. To do them well, allow at least 2 feet each way. If set in fertile soil they are better if not manured, and, once started into growth, the ground, if loose, should be firmed by foot trampling. These means are effective in reducing losses during extreme frosts.

Herbs.—A sharp eye must be kept on any that are getting at the stage for gathering to dry. Thyme stands the winter all the better when the flowering stems are removed, and a new growth made and hardened before winter sets in. Late pickings of Sorrel may be had if the old leaves and stems are removed and the beds dressed with a compost rich in manure, such as that from Mushroom-beds.

The Fruit Garden.

Strawberries.—All but the latest will now be past, though in many gardens all kinds have been very scarce. Now the beds should be thoroughly cleaned, rooted runners required for planting being first lifted. The ground should be made firm after digging.

Worn-out Beds.—These should be destroyed at once. My plan is to cut over the plants by means of a sharp spade, with which the workman rapidly runs along the rows at the ground-level. The plants, after lying a few days to dry, are gathered into heaps and reduced there and then to ashes, and when time permits the ground is cultivated either by deep digging or trenching, the latter the preferable way.

Rooted Runners.—These usually are arranged close in rows to await ground becoming vacant and prepared for their reception. A thin coating of old Mushroom-bed manure is spread on the ground first of all, and is mixed with the soil in planting, which need not be more than 4 inches in depth. In the course of a few weeks each plant makes for itself a nice ball of fibrous roots.

Ripening Fruits.—The earliest fruits of Rivers' Prolific Plum usually ripen enough now to be used for cooking. This year Plums are so scarce that it may be wise to keep even these for preserving. Occasionally, too, fruits of Peach Early Beatrice ripen thus early on a south wall. It is therefore necessary to examine this and Hale's Early from time to time.

The Plant-Houses.

Primula obconica.—The latest batch of this useful plant should now be placed in 6-inch pots, using extra drainage and not potting over-firm. Return the plants to a cold frame and ventilate only in the daytime, damping the frames in the afternoon and shutting them up every night. They will under these conditions be nice flowering plants by October or November.

Coleus thyrsoides.—These, too, should get a final shift, and may be flowered in 5-inch to 8-inch pots. Keep them growing freely in a stove with light and ventilation, and pinch the tips of the shoots in order to make the plants bushy.

Hippeastrums.—Any plants that have stopped growing must be sparingly watered and given cooler quarters, so that they may go slowly to rest. Offsets growing in cutting-boxes will continue growing for some time yet, and must not be deprived of water at the root.

Cœlogyne cristata.—This useful Orchid is now growing rapidly, and if the plants have not been repotted recently, very diluted manure-water will be beneficial now that roots are being freely produced. A temperature of 60° to 65° suits them well, with free ventilation in fine weather.

Chrysanthemums.—A constant look-out must be kept for the first appearance of aphids, and the points of the shoots at once dusted with Tobacco powder. Tie the shoots well out so as to allow the air to pass freely among them, and as soon as the nights become cool watch for mildew, dusting the leaves with flowers of sulphur wherever it appears.

R. P. BROTHERSTON.

Tynninghame, Prestonkirk, N.B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

SWEET PEAS (No Name).—To secure the most bloom from your Sweet Peas, let them grow freely, water them according to necessity, feed them generously, and pick every flower-stem immediately, or just before, it reaches perfection. This will spell quantity, but one would not care to promise that the quality will be superlative.

VIOLA DISEASE (Reader).—The Viola foliage is attacked by the rust fungus (*Puccinia violæ*). It is difficult to deal with, for it spreads very frequently from wild Violets to garden forms; but all attacked parts of plants are best destroyed. It is not, however, usually a very serious pest. Perhaps spraying with a rose red solution of potassium permanganate would do good. The leaf-curl of the Roses is the work of the Rose sawfly, which lays its eggs in the leaf, causing it to curl. Probably spraying it with lead arsenate (which is best purchased in the paste form) would be a means of destroying the larvæ if the spray were applied, say, at the end of May, before the leaves curled. The best means would be to remove the top 2 inches or 3 inches of soil from under the bushes some time during the winter, and either burn it or bury it deeply. The pupæ are present in this, and this would be a means of getting rid of them. The black spot on the Roses is due to the fungus *Actinonema rosæ*, and spraying with liver of sulphur, or with Bordeaux mixture, commencing immediately, is, next to hand picking, the best means of checking its spread.

THE GREENHOUSE.

CYCLAMEN (M. T. V.).—The leaves of Cyclamen have been very badly attacked by that insidious insect of microscopic proportions to which the name of Begonia mite is usually applied, from the fact that it was first noted on these plants. The greater part of the mischief is done while the leaves are in a young state, though the damage is more apparent afterwards. It can be destroyed by dipping in one of the several preparations of nicotine now to be obtained, following closely the instructions supplied with it, as these preparations vary in strength. Vaporising with XL All Vaporiser will also keep this mite in check. The ravages of this mite are greatly on the increase, and it now attacks a number of indoor plants, particularly if they are subject to a dry atmosphere.

TREES AND SHRUBS.

THE CRICKET-BAT WILLOW (C. H. F.).—The true cricket-bat Willow is an upright-growing form of *Salix alba cerulea*. Cuttings may be obtained from Mr. Shaw of Messrs. Shaw and Shrewsbury, cricket and general sports outfitters, Nottingham, or the Estate Agent, Estate Office, Copped Hall, near Epping, might be able and willing to give other addresses.

UNCOMMON WALL SHRUBS (David).—The following kinds of shrubby plants will be suitable for your walls. Some bear showy flowers in May, and others are remarkable for coloured fruit and foliage in autumn: *Ceanothus rigidus*, *C. veitchianus*, *Halesia corymbosa*, *Crataegus crenulata*, *Cotoneaster bullata*, *Clematis montana rubens*, *Vitis Henryi*, *Vitis Thunbergii*, *Escallonia exoniensis*, *E. langleyensis*, *Magnolia Watsoni*, *Sophora vicifolia*, *Abelia triflora*, *A. floribunda*, *Jasminum humile*, *Actinidia chinensis*, *Lonicera sempervirens*, *L. Henryi*, *Viburnum macrocephalum* and *V. utile*.

ORANGE TREES (M. P. H.).—From the appearance of the leaves of your Orange trees sent for examination, we have no hesitation in saying that root trouble is the source of the mischief. One or more of several things may have caused this. Defective drainage, improper soil, or over-watering would all be conducive to such a condition. We suggest that the plants be turned out of their pots and the roots examined. If the drainage is bad, remove it and supply fresh, while, if the roots do not appear to be healthy or the soil seems to be sour, remove as much of the soil as possible from among the roots with the aid of a pointed stick. Then repot in clean pots which have been well drained with thoroughly clean crocks, and repot into a compost made up of three parts good fibrous loam (not broken very small), half a part leaf-mould, and half a part broken sandstone and coarse sand. A small quantity of half-inch bones may be mixed with the soil if the roots are fairly healthy. Do not give any pots larger than is absolutely necessary, and root

firmly. After potting, place the plants in a moderately close and moist house which can be shaded from bright sun, and keep the plants well syringed several times daily. Water very carefully at the roots. About August stand the plants out of doors for a month or so; then remove them to a greenhouse for the winter.

ROSE GARDEN.

ORANGE FUNGUS AND BLACK SPOT (W. G.).—The two Roses are rather badly attacked by the two fungi named above. The red rust, or orange fungus, is so abundant on wild Roses generally that it is almost impossible to keep it from our cultivated Roses. The fungus will live through the winter, so that all leaves from affected plants should be burnt, and if they are carefully gathered up, and those on the bushes removed also, and put into a fire, much, if not all, of the fungus will be destroyed. Where trouble has previously existed, the bushes should be sprayed in spring, just when the leaves are expanding, with a solution of sulphide of potassium (one ounce to ten gallons of water), and if the rust appears in the wood, paint the parts with a solution of methylated spirit and water in equal parts. Black spot is a fungus that does not appear much before midsummer. Badly-diseased leaves should be removed and burnt. There is at present no known cure for black spot, but spraying with Bordeaux mixture, if commenced early enough, will certainly help to keep it in subjection.

MARECHAL NIEL (A. R.).—When one is able to devote the whole greenhouse to a plant of this Rose, the best method of treatment is as follows: The two main branches should be brought down and trained horizontally, one to the right and the other to the left. As we assume at present these two growths are growing perpendicularly, or nearly so, on the roof, you should now fit the roof with wires about fourteen inches apart, as for Vines, and retain one young growth for each wire, rubbing off all the others, as we understand from your letter that you have cut back the growths that have blossomed almost to their base. During the summer suppress all growths, excepting those in the wires, and encourage these latter all you can by liberally watering with liquid manure at intervals. Plenty of solar heat and atmospheric moisture will also assist growth immensely, so that to secure the heat you must not give too much ventilation, and be careful to close the house at 4 p.m. If the plant is a really thrifty one, your rods will reach the top of the wires, and probably more; but do not check them in any way, as they will cease growing in late autumn. From these rods the next season's crop of blooms are obtained, and the object should be to see that they are well ripened by the autumn. In the spring, when the buds seem to be ready to start, release the rods and let them droop away from the roof for a time, so that the lower eyes may start out also. As soon as the blooming has ended, these rods are cut down to the main arms again, and the same process is adopted for the new rods next summer.

FRUIT GARDEN.

APPLE TREE (L. H.).—Your tree is attacked by the canker fungus (*Nectria ditissima*). Cut out and burn the affected branches, and paint the wounds with lead paint or Stockholm tar.

PEARS CANKERING (G. H.).—The fungus causing the cracking of Pears is, no doubt, the Pear scab fungus (*Fusicladium pyrinum*). It attacks not only the fruit, but leaves and shoots as well, and spraying should be done with Bordeaux mixture before the buds open, and again as soon as the petals have fallen.

YOUNG VINES SHANKING (N. M.).—It is not an uncommon thing to see Grapes shanking on young Vines such as yours when bearing only two or three bunches. What is the cause of it in such cases it is difficult to say, but we think it must be in consequence of derangement in the flow and distribution of the sap to the branches, some one or more constituents necessary to the healthy development of the berries being absent. If the Vines are robust and healthy, you will find this will disappear as the Vines come into normal bearing. If the Vines are not robust, then the trouble must be looked for at the roots. Shanking is not an inherited disease.

PYRAMID GOOSEBERRY TREES (J. B.).—To grow Gooseberries for profit there is no better way than to grow them as bushes in the ordinary way. Grown as pyramids the trees are more ornamental, and the fruit is more exposed and easily picked. The way to train these is to encourage the centre branch to grow upwards, and to prune the side shoots so as to form a cone. Your best way would be to buy young trees with the foundation of this training laid, notice how they are pruned, and follow the example. They can be bought very cheaply.

KITCHEN GARDEN.

TOMATOES (P. J.).—We have been unable to find any trace of insect or fungus on the Tomatoes to account for the discoloration of the foliage. It is probable that they have insufficient potash, and we should recommend you to try watering with sulphate of potash now and then at the rate of 1½ oz. to the three-gallon can.

POTATO STEM ATTACKED (H. C. R.).—The grub feeding in the stem of the Potato is that of the minute moths (*Microlepidoptera*), but we are not sure of the species. It has been met with two or three times this year, but we can find no record of its occurrence in these islands before, though it is reported from Algeria. It would be well if you could breed out the moth so that it could be identified.

TIME TO SOW VARIOUS SEEDS (S. H.).—Too early sowing is usually the cause of Cabbage bolting in spring. The following Cabbage may be safely sown on August 10; Sutton's April Flower of Spring and Ellam's Early, also Offenham and Feltham. Enfield Market should be sown ten days later. You may make a small sowing of the Onions mentioned now (these will make fine bulbs if they do not bolt). Your main sowing should take place about August 12, the object being to get fairly strong plants before the winter, but not too large or strong.

MISCELLANEOUS.

"JULIENNE" (L. E. D.).—The name of Julianne is applied to several plants, but it is likely that the one to which you refer is *Hesperis matronalis*, belonging to the Order Cruciferae, and known under the various names of Julianne, Julianne des Jardins, Dame's Violet and Rocket. It is usually treated as a biennial, and seeds are sown about May or June one year to produce plants to bloom about the same time the following year; sometimes, however, plants may be kept for several years! There are numerous forms which differ principally in the colour of the flowers, but one form has double flowers. Other plants to which the name of Julianne is applied are *Malcolmia maritima* (Julienne de Mahon) and *Barbarea vulgaris* (Julienne Jaune or Yellow Rocket-Herb); the former is a cruciferous plant found wild on the shores of Kent, but not truly British, its home being in Southern Europe. It has small white or purplish flowers. *Barbarea vulgaris* is a British plant, which is known as Land Cress or Common Winter Cress. A common weed, it is found in gardens on waste land, &c. The flowers are yellow. A cultivated form with double flowers is the French Julianne Jaune, the type in France being spoken of as *Barbarea* or *Herbe de St. Barbe*. This also belongs to the Cruciferae, though we suggest that the common Rocket is possibly the plant you require. It would not be difficult for you to obtain all three; then you could decide which is the plant you require. Messrs. Backhouse, nurserymen, of York would doubtless be able to supply the specimens, for they include in their business a scientific branch for the purpose of supplying schools, institutions, &c., with specimens.

NAMES OF PLANTS.—Colonel H. M.—A, *Veronica ligustrifolia*; B, *Veronica speciosa*.—M. A. R. C., *Lincoln*.—*Tilia platyphyllos asplenifolia*.—M. M. M.—The fungus was beyond recognition on arrival. Kindly send again.—P. H.—*Robinia Pseudacacia dubia*.—M. M. A.—*Tragopogon pratense*.—Mrs. F. B.—*Good-yera repens*.—W. Steedman.—*Asplenium Filix-femina ramosa*.—A. G., *Auvergne*.—1, *Linaria repens*; 2, *Dianthus deltoideus albus*; 3, *D. Sequieri* variety.—Lady Evelyn Mason.—1, *Lavandula spica nana compacta* (Dwarf French Lavender); 2, *L. spica* (the Old English Lavender).

SOCIETIES.

SOUTHAMPTON JUBILEE SHOW.

THE council are to be highly congratulated on the successful exhibition held at the County Ground, Southampton, on July 16 and 17. The weather was exceedingly hot, and reminded one of the sweltering days of July, 1911. By a judicious system of ventilation the tents were kept fairly cool, and this condition was much appreciated by exhibitors and public alike. The exhibition was one of the best that the society have held in Southampton; the arrangement of the numerous exhibits was, as usual, perfect, and reflects much credit on the courteous secretary, Mr. Fudge, and the members of the council.

Carnations, Sweet Peas, vegetables, fruit, Roses, herbaceous and alpine plants and cut flowers, groups of miscellaneous plants and table decorations made a magnificent display; particularly fine were the exhibits of Messrs. Ladhams, Limited, Messrs. W. H. Rogers and Sons, Limited, Messrs. Webb and Sons, The Locksheath Nurseries and Messrs. Toogood and Sons. There were twenty-eight dinner-tables in competition, all lovely; they constituted a show in themselves. In such keen competition Miss Minnie Snellgrove won the two first prizes, and in an equally keen competition the first prize in the class for the most elegant epergne. Mr. Parton of Birmingham finally won the silver challenge cup in the amateurs' division for Carnations and Picotees. He again made the highest aggregate number of points in the vase classes, staging blooms of wonderful purity and freshness. Mr. James Douglas, Great Bookham, was a prominent prize-winner; he had grand flowers, which were greatly admired.

CARNATIONS.

In Class 1, for twelve vases of selfs, fancies and yellow-ground Picotees, Mr. Douglas won first position. Purity (premier bloom), Liberté, Pasquin, John Ruskin and Togo were very fine blooms. Second honours went to Messrs. Arthur R. Brown, Limited, Birmingham, a firm that staged some grand flowers; third, Mr. H. Mathias.

For four vases of Carnations, selfs, Mr. Douglas was first, Mr. Mathias second and Messrs. A. R. Brown third. Mr. Douglas had the best four vases of Carnations, fancies, Messrs. A. R. Brown and Mathias being second and third respectively.

Messrs. Brown and Douglas won in the order named in the class for four vases of Carnations, white-ground fancies. In Classes 5, 6, 7 and 8 Mr. Douglas was the winner.

In Division II. Mr. Parton won nearly all the first prizes, Mr. Linzee and Mr. J. H. Linington being also prominent prize-winners.

Mr. Linzee was very successful in the classes for dressed blooms on boards.

SWEET PEAS.

In the class for twelve distinct varieties Mr. Bealing was first. Mr. W. Bird, gardener to Miss Read, and Mr. R. Lawrence were second and third respectively. Stirling Stent, W. R. Beaver and E. Pearson were grand blooms in the first-prize collection.

Mr. F. Green had the best six varieties, Melba, Nettie Jenkins and Thomas Stevenson being fine blooms; second, Mr. Regan; third, Mr. G. Barnes.

Messrs. Toogood and Sons' first prize for nine distinct kinds was won by Mr. Usher, gardener to Sir E. Baker, Bart., M.P. He had Barbara, Thomas Stevenson, Nubian and Moneymaker in fine condition. Second, Mr. Bealing. Some exhibits in this class were disqualified.

The first prize for nine distinct varieties, offered by Mr. Robert Sydenham, Birmingham, was won by Mr. Bealing.

Mr. Usher won the first prize for six bunches, offered by Messrs. Sutton and Sons; second, Mr. Hodson.

Mr. Bealing had the best vase of Sutton's Queen Sweet Pea.

Mr. Usher won the first prize for the best eight varieties, offered by Messrs. Webb and Sons; and also the first prize for six varieties, offered by Messrs. James Carter and Co.

ROSES.

The challenge trophy, for a representative group of cut Roses, to occupy a space not exceeding 50 square feet, offered by the Hon. Mrs. Eliot Yorke, was won by Mr. John Mattock, Oxford. It was a charming collection.

James Carter and Co., Mr. Ellwood was invincible, winning premier honours with produce of the highest quality, neatly staged.

MISCELLANEOUS SECTION.

Mr. E. Wills, Southampton, won in the open class for a group of miscellaneous plants arranged for effect; second, Mr. Turner, gardener to the Hon. Mrs. Eliot Yorke; third, Mr. Bealing.

In the class for a group arranged in a space of 80 square feet, Mr. T. Hall was the winner, also for a single flowering plant, staging *Clerodendron fallax*.

Mr. Hall scored in the classes for six *Caladiums* and six *Zonal Pelargoniums* respectively.

The heavily-laden fruit trees in pots exhibited by The Locksheath Nurseries were very fine, and attracted much attention.

NON-COMPETITIVE EXHIBITS.

Gold Medals.—To Mr. H. Burnett for Carnations; Messrs. E. Webb and Sons for vegetables, fruit and flowers; Messrs. H. B. May and Sons for Ferns; Messrs. Toogood and Sons for Sweet Peas; Messrs. W. H. Rogers and Son, Limited, for ornamental shrubs, Roses and rockery plants; Messrs. B. Ladhams, Limited, for rock garden, Roses and herbaceous cut flowers; and The Locksheath Nurseries for Carnations and fruit trees in pots.

Silver-gilt Medals.—To Messrs. A. R. Bide and Sons for Sweet Peas; Mr. C. W. Bredmore for Sweet Peas; Messrs. Jarman and Co. for cut flowers; Messrs. E. W. King and Co. for Sweet Peas; Mr. F. Longster for miscellaneous plants and Sweet Peas; and Mr. J. Stevenson for Sweet Peas.

The silver Rose bowl was won by Messrs. Frank Cant and Co., Colchester, who staged a fine lot of blooms; closely followed by Messrs. Harkness, last year's winners.

Mr. R. F. Felton very kindly decorated a table with Carnations and Asparagus Fern, which was most tastefully finished with the simplest devices, this being the primary object. He also helped with the judging of the tables and other floral classes.

There were ten entries in the class for table decorations, and the first prize fell to Mrs. Thomas for an artistic arrangement of Sweet Peas.

The trade exhibitors were represented by Messrs. W. Cutbush and Sons, Barnet, who showed Roses and other flowers; Messrs. H. Newman and Son, Watford, Sweet Peas, Violas and sundries; Messrs. Gleeson and Co., herbaceous plants, &c.; and Messrs. Thomson and Charman, alpine and herbaceous plants.

LIVERPOOL HORTICULTURAL ASSOCIATION.

THIS society held a most successful show in the Corn Exchange, Liverpool, on the 17th inst., the exhibits filling every portion of the hall. Unfortunately, the hot weather had proved too much for the Queen of Flowers, so that a number of entries were not forthcoming. The general exhibits were somewhat undersized, but excellent in colour. The Sweet Peas were a great advance on anything yet seen in Liverpool, both in quantity and quality.

Roses.—Eighteen Hybrid Teas had only one exhibit, which secured the first prize for Mr. J. W. Parker, gardener to J. R. Dixon-Nuttall, Esq., Prescott.

For eighteen blooms, distinct, Mr. Parker was again to the fore, his Lyon and Lady Ashtown being noteworthy.

For twelve blooms Mr. Aindow of Formby led with a handsome lot of well-shaped flowers; for six blooms Mr. W. Foulkes was first.

For twelve, in not less than six varieties, amateurs only, Mr. L. Thomson took the first; and for six blooms Mr. P. Fitzpatrick secured the favoured position. Mr. C. Green had the best vases, and Mr. C. Hackney was the winner in the members' class.

Sweet Peas.—The class for twenty vases brought out a strong competition, Mr. W. Davies, gardener to Dr. G. H. Phillips, occupying the place of honour with fine flowers of excellent substance. Mr. R. R. Anderson proved a good second. Mr. W. Bond, gardener to J. P. Heron, Esq., also staged well.

For twelve vases Mr. W. Davies was again the victor, his Nubian, Thomas Stevenson and Mrs. Harcastle Sykes being extra good. Mr. H. Foulkes, gardener to Major F. M. Roome, Formby, and Mr. E. T. Barrett, gardener to E. Cozens-Hardy, Esq., Woolton, won the other prizes.

For a like number of waved standards Mr. H. Foulkes took the leading position with a good stand.

For twelve vases, distinct, Mr. J. George, gardener to Mr. T. Henshaw of Roby, was first; also for a similar number locally grown.

Mr. W. Bond secured Messrs. Sutton's special prize for Sutton's Queen.

For twelve vases, amateurs only, Mr. J. Roberts of Gresford had the leading lot; and for six Mr. R. Aindow was first. For the waved selection Mr. G. Faulkner proved successful. Messrs. E. J. Procter and J. Tapscott proved the champions in the members' section.

For a table of Sweet Peas Miss Newsham held the place of honour in strong competition, Mrs. H. E. Marsh winning for the table other than Sweet Peas with pleasing single bronze-coloured Roses.

Herbaceous Cut Flowers.—These were shown in quantity and enlivened the appearance with changes of colouring. Mr. J. George and Mr. Parker gave evidence that these flowers are still well cared for by some, Messrs. E. Sergenson and J. Green contributing their quota as amateurs.

Carnations and Picotees were well represented, Ann Hathaway, Miss Peggy and Lady Willmott being charming. The chief awards went to Messrs. James Calder, H. S. Barrett, R. Duke, E. Sergenson and J. Green.

Mr. Turnbull had the best Pansies and Violas; while Mr. W. A. Crippen showed the beauties of the single and double flowered Begonias.

Non-competitive.—Gold medals appeared to be dealt out with a free hand. These were awarded to Mr. R. Manson for a fine display of Roses; Messrs. R. P. Ker and Sons, miscellaneous plants, fruits and vegetables; Liverpool Orchid Company, Orchids and cut Roses; Mr. H. Middlehurst, Mr. R. Wright, Messrs. Aldersey and Marsden Jones, each for a collection of Sweet Peas; Messrs. Dicksons, Chester, Gladioli, Roses, &c.; and Bees, Limited, alpine plants and cut flowers.

Silver Medals.—Messrs. C. A. Young, West Derby, and C. Russell of Blundellsands for Carnations and Picotees; the Covent Garden Company, herbaceous cut flowers; Mr. W. Rowlands, Childwall Nurseries, Roses; Messrs. Jones Brothers, assorted cut flowers; Messrs. Aitken and Faulkner, Tarvin, Sweet Peas; Messrs. Fishlock Brothers, floral decorations; and Mr. W. Hodgkinson, Gloxinias in pots.



A MAGNIFICENT COLLECTION OF VEGETABLES SHOWN BY MR. E. BECKETT AT THE ELSTREE SHOW.

Second honours went to Messrs. W. H. Rogers and Son, Limited, Southampton, who also had a lovely group.

Messrs. Perkins and Sons, Coventry, were first in the class for twenty-four cut blooms, distinct. Avoca, Duchess of Sutherland, The Lyon Rose, Caroline Testout and Queen of Spain were the best flowers. Messrs. D. Prior and Sons, Colchester, and Mr. Mattock were second and third respectively.

Messrs. Perkins, Prior and Mattock won in the order named in the class for twelve Roses, Teas or Noisettes.

Mr. Nicklen, gardener to Alan Searle, Esq., had the best nine, distinct, exhibition or decorative; and Dr. Lamplough the best twelve Roses, distinct.

FRUIT AND VEGETABLES.

These were of high quality and extensively shown. Mr. Baxter, gardener to Captain Dalgety, Romsey, had fine Grapes, Peaches, Nectarines and a grand Melon in his first-prize collection of six distinct varieties of fruit.

Mr. Hall, gardener to Ellen Lady Swaythling, staged four perfect bunches of Madresfield Court Grapes, and won first prize.

Mr. W. Hall, gardener to Major Chichester, had the best pair of bunches in the class for two of white, staging Muscat of Alexandria.

Mr. T. Hall scored in the class for two bunches of black, staging Madresfield Court.

Mr. Ellwood, gardener to W. H. Myers, Esq., had the best green-fleshed Melon.

The Locksheath Nurseries had the best dishes of Peaches and Nectarines respectively.

In the classes for collections of vegetables, the prizes being offered by Messrs. Toogood and Sons, Messrs. Sutton and Sons, Messrs. Webb and Sons and Messrs.

Silver Medals.—To Mr. W. E. Alsen for Sweet Peas; Mr. H. Ellison for Cacti; Messrs. Wells and Co. for Carnations; Mr. C. Fay for Carnations; and Messrs. Hillier and Sons for Roses.

Award of Merit.—To Mr. Maurice Prichard for cut flowers of herbaceous plants.

ELSTREE AND BOREHAM WOOD HORTICULTURAL SHOW.

THIS society held its fourth summer show on July 10, and was again favoured with brilliant weather. Since its formation the society has been fortunate in having such ideal surroundings as the park and grounds of Aldenham House, kindly placed at their disposal by Lord Aldenham and the Hon. Vicary Gibbs, and the continued success is largely due to the kindly interest extended by these gentlemen. This year experienced a record attendance, also an increased number of entries in the competitive classes, and both in the open amateurs' and cottagers' classes excellent exhibits were staged. The honorary and trade exhibits were arranged in a separate marquee, and evoked considerable interest. At either end was a fine group staged by the president (gardener, Mr. E. Beckett, V.M.H.), which were awarded a gold medal. One consisted of a fine collection of vegetables, one of the largest ever exhibited, including about a hundred dishes of excellent varieties, and the other was a model water garden, depicting a stream planted with Water Lilies and other aquatics, the banks and background being planted with Rushes and flowering subjects.

Edgar Greenwood, Esq. (gardener, Mr. G. Capell), staged a group of well-grown specimens of Hydrangeas and Coleus, and was awarded a silver medal.

ROYAL HORTICULTURAL SOCIETY.

At the fortnightly meeting held in the society's hall at Vincent Square, Westminster, on the 16th inst., there was a rather small but interesting display of flowers and fruits. Owing, no doubt, to the extreme heat, visitors were by no means numerous.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), and Messrs. C. T. Druery, E. A. Bowles, G. Reuthe, C. R. Fielder, C. Blick, J. F. McLeod, W. Howe, C. Dixon, J. Dickson, H. J. Jones, A. Turner, C. E. Pearson, W. P. Thomson, E. H. Jenkins, W. J. James, J. Hudson, R. C. Reginald Neville, H. J. Chapman, Charles E. Shea, J. Green, R. C. Notcutt and W. J. Bean.

Messrs. W. Cutbush and Sons, Highgate, N., arranged on the floor opposite the entrance quite a superb lot of Carnations in pots representative of the Malmaison sorts, grouping around them amply-filled vases of the best types of the Perpetual-flowering sorts. The more conspicuous of the former set were Lady Nunburnholme (a new variety, of self salmon tone), Monk (scarlet), Lady Coventry (very large scarlet, savouring of the rich fragrance of the Clove), Sault and Sir E. Wood (pink). The new Malmaison Viscountess Goschen (light cerise tone) and Yaller Girl were also on view. Of the Perpetual-flowering sorts, the new crimson, Lord Rothschild, Mrs. L. Mackinnon (scarlet), White Enchantress, Beacon and the popular Mrs. W. Ward were noted. The latter was particularly good and pleasing. Tall, richly-coloured Crotons and graceful Palms were among the garnishing items to this fine group. Silver Banksian medal.

Messrs. Phillips and Taylor, Bracknell, Berks, had a pretty and cool-looking water pool, adorned with the best Marliac and other Lilies, and surrounded with suitable moisture-loving subjects, Trollius, Funkias, Marsh Forget-me-not, Rushes and the like. *Juncus zebrius* was also a feature at the margin. The finer Water Lilies were *Nymphaea Falconeri* (rich glowing crimson) and *N. gladstoneana* (purest white, very handsome). A group of herbaceous plants included many seasonable flowers. Silver Banksian medal.

Messrs. J. Peed and Sons, West Norwood, S.E., displayed a full table of their excellent strains of Streptocarpus and Gloxinias, the latter being particularly rich in the best spotted varieties. The self-coloured flowers, too, were very fine, crimson, white, scarlet and pink demonstrating the range in this direction. In a setting of Ferns the full table constituted quite an attraction. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, displayed a highly-attractive and seasonable exhibit of greenhouse flowering plants, notably Cannas, Carnations and a surpassingly beautiful lot of the mauve-coloured *Solanum Wendlandii*. Of this really indispensable subject, each with a handsome head of flowers, there were some three dozen plants from 2 feet to 4 feet high, the whole constituting a particularly good feature. *Amphicarpus Emodii*, *Cilanthus Dampieri*, *Sollya Drummondii* (with exquisite sky blue pendent flowers) and *Thalictrum dipterocarpum* were all noted. The Cannas gave a sumptuous feast of colour; a great mass of crimson-flowered varieties occupied the centre, and of these Duke Ernst, Dr. Buding and William Saunders were the chief. Terra-cotta (rich orange) and Frau E. Kracht (of salmon tone) were also noted. Of border Carnations, Queen of Carnations (pure white), Amazon (fancy), Mrs. Penton (yellow-ground fancy) and Apricot (very suggestive of its colour tone) were among the best of these flowers. A nice series of the Javanica-jasminiflora *Rhododendrons* also came from Messrs. Veitch. Silver-gilt Banksian medal.

Mr. L. R. Russell, Richmond, showed a mixed table of *Coleus*, *Iresine*, *Rex Begonias* and standard Fuchsias, intermingled with Eulalias and other things.

Messrs. Barr and Sons, Covent Garden, W.C., had a mixed group of hardy flowers, in which *Iris Kämpferi*, Phloxes, Gaillardias and *Salvia virgata nemorosa* were dominant features. A dark mahogany red variety of *Helenium cupreum*, called Taplow Gem, was also shown.

Messrs. Stuart Low and Co., Enfield, showed some superb pyramids of Roses, a few leading sorts appearing in quite excellent form. Dean Hole (pink), White Killarney, J. L. Mock, the gorgeous golden yellow of Rayon d'Or, Lyon in all its regal splendour, and the pure flowers of Molly Sharman Crawford were among the best. The last-named is characterised by great purity and good form; in short, it is in its way ideal. Bronze Flora medal.

From The King's Acre Nurseries, Hereford, came a series of 100 or more spikes of *Eremuri*, representative in the main of certain characteristics of *E. Olga*, but in a glorified form, the giant inflorescences now and again far more suggestive of the stately *E. robustus*. Then in colour there were gradations of pink, blush and salmon, and anon pure white or lemon white and others of greenish white, which gave to this late-flowering race a great charm. We know of no other section of this family showing such marked tendency to variability, and which, in conjunction with their late coming, will be so great a gain to the open-air garden. Silver Banksian medal.

Messrs. Fells and Son, Hitchin, showed Phloxes in very good form, of which Fraulein von Buchner (blush), Fraulein von Lassburg (white), Louis Blanc (purple), Antoine Mercier and Goliath (reddish carmine) were the best.

Messrs. Carter Page and Co., London Wall, E.C., had a particularly showy group of Antirrhinums, and, arranging each colour in a basket group separately, rendered the whole singularly effective. Cottage Maid (pink and white), Moonlight (orange and yellow) and Gloriosum (reddish) were among the novelties. Pink Queen, also a novelty, was perhaps the most charming of all, strong of spikes

and pretty and effective in colour. Golden Queen, luteum, and kermesianum (crimson velvet) were also fine. A group of the sweet-scented Scabious and a charming lot of Tufted Pansies were arranged in pans to the extent of 100 or more. W. H. Woodgate (clear blue), Maggie Mott, George Palmer (golden) and Mrs. Vasey (maroon purple) were all good. Silver Flora medal.

Mr. Philip Ladds, Swanley, had a group of Salmon Paul Crampel, White Queen and Champion Zonal bedding Pelargoniums, which were very showy.

Messrs. H. J. Jones, Limited, Lewisham, displayed another of their grand exhibits of herbaceous Phloxes, arranging towering pyramids of these showy and indispensable border flowers of summer. Among the more conspicuous were G. A. Strohelein (crimson-scarlet), Avalanche (white), Antoine Mercier (blue and white, very distinct), Frau Antoine Buchner (grand white, fine pip), General van Hentsz (reddish scarlet), Dr. Charcot (one of the blues) and Frau von Lassburg (pure white) in a particularly good and attractive lot. Silver Banksian medal.

Mr. Charles Blick, Warren Nurseries, Hayes, Kent, had a superb gathering of his inimitable border Carnations, showing finely of selfs and fancies in his well-known style. Dora Blick, a giant flower of a gloriously rich apricot orange colour, is superb, grand of petal, of substance and of form—an absolutely indispensable flower to any collection. Donald MacDonald, Skirmisher (mauve and scarlet on yellow ground), Jupiter (rose fancy), Father O'Flynn (brick red, yellow ground), Attraction (snow white), Mrs. Eric Hambro (purest white), Hercules (one of the finest), Daffodil and Solfaterra (two of the best yellows) and Cyclops (crimson on yellow ground) were among the gems in a really grand lot. Silver Banksian medal.

Mr. J. E. Lowe, Hatton, Warwick, had vases of a new early Chrysanthemum, Early Beauty, the colour of which is white with lilac blush.

Mr. W. Proffitt, Twickenham, had the new Astilbe Electra, very distinct by reason of its delicate mauve-blue and white colouring. It is obviously a very charming sort. Another variety, A. Rhenania, with rosy pink, blue-shaded flowers, received an award of merit.

Mr. Amos Perry, Enfield, had a delightfully pretty and cool-looking bit of water garden with suitable associations. The surroundings were very pleasing, and in addition to grasses, Rushes and allied subjects, a gloriously effective centre was made of the yellow-flowered *Senecio macrophyllus*, whose giant inflorescences and great glaucous leafage render it ideal for the purpose. *Iris laevigata*, in very charming variety, and such Lilies as L. Humboldtii, L. H. magnificum, L. pardalinum, L. columbianum, L. canadense, L. Martagon dalmaticum and L. testaceum were all included in a pretty semi-circular frontal group springing from a groundwork of Ferns. Of the Water Lilies in the pond, *Marliacea albidia*, chromata, zanzibariensis (blue) and *Marliacea carnea* were among the best. Fruits of the not-often-seen *Podophyllum Emodi* were also noted in this group. Silver Banksian medal.

Messrs. Gunn and Sons, Olton, Warwick, had a nice exhibit of Phloxes. Elizabeth Campbell (pink), G. S. Strohelein (best scarlet), General van Hentsz (scarlet and white), La Mahdi, Harrisoni (an early suffruticosa form) and Lady Mary Hope (pink) were among the best. Silver Banksian medal.

From the Guildford Hardy Plant Nursery came many good and seasonable things, Yuccas, Platycodons and *Dracocephalum altaicensis* (a good blue) being noted. The white Lavender was a notable plant in this group.

Messrs. T. S. Ware, Limited, Feltham, had a rather full table of herbaceous plants, Phloxes, Eryngiums, Heleniums, Liatris, Achillea Ptarmica The Pearl, Hollyhocks and Gaillardias being among the more prominent subjects. Bronze Flora medal.

Mr. G. Reuthe, Keston, Kent, had one of his interesting exhibits of hardy plants, among which were a series of beautiful Campanulas, as C. mirabilis, C. Stansfieldii, C. Hostii and others. Platycodon grandiflorum was also noted. Good Lilies included bloomerianum magnificum, philadelphicus, Martagon dalmaticum, canadense and others. *Chimaphila maculata*, with white flowers and striped, notched leaves, was very charming. Bronze Flora medal.

Mr. M. Prichard, Christchurch, in addition to a table of herbaceous subjects, of which Phloxes were a chief item, showed boxes of alpine, Campanula Zoysii, C. G. F. Wilson, C. pelioformis, C. gargarica, C. g. alba, Stachys corsica and Artemisia pedemontana, a silvery-leaved plant, being among the most charming. Campanula willmottiana, with semi-double flowers of azure blue, was also good. Bronze Flora medal.

Messrs. W. Wells, Limited, Merstham, had a fine lot of herbaceous Phloxes in the best varieties.

Messrs. Cannell and Sons, Swanley, brought an interesting lot of Cacti, of which *Opuntia paraguayensis* (with orange flowers) and *Phyllocactus Pfendordii* (with white flowers) were in bloom. Some Mammillarias were also in flower. Silver Flora medal.

Messrs. H. B. May and Sons, Edmonton, staged a table of flowering plants, of which the white Marguerite Mrs. F. Sander, Verbena Miss Willmott, Campanula isophylla alba, C. i. Mayii, Ixora Duffii (very fine examples) and a delightful lot of Ferns, of which the Glory Fern (*Adiantum farleyense gloriosum*) was the best, were shown. *Nephrolepis exaltata muscosa* is a new variety of great density. Silver-gilt Banksian medal.

Messrs. James Kelway and Son, Langport, showed a capital stand of Gladioli, chiefly of the Kelwayii group and the more recent hybrids of G. primulinus. Of the former we noted Beatrice (bright rose, creamy centre), Faust (crimson-maroon), Lady Montague (white, crimson centre), Knight of Gladioli (light scarlet), Lord Erroll

(rose pink), Duchess of Leeds (blush, with deeper-coloured lower petal) and Polistratus (light scarlet). The hybrids of primulinus are distinguished by the name "Lang-Prim," and promise to become a useful set. Silver Flora medal.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), and Messrs. W. Bates, George Woodward, Thomas Coomber, H. Markham, George Kelf, A. Bullock, George Wythes, J. Jaques, A. R. Allan, J. Davis, A. W. Metcalfe and P. C. M. Veitch.

The two gold medal groups before this committee constituted a great feature of the meeting, and in each case the award was well merited. One of these was for a magnificent collection of twenty Queen Pine-apples from Lord Llangattock, The Hendre, Monmouth (gardener, Mr. T. Coomber), and for which no praise is too great. Representing the highest degree of cultural excellence, gardeners and visitors alike appraised these at their fullest worth, our only regret being in such a case that the cultivator does not receive some special mark of appreciation from the society for maintaining so high a standard of excellence in the cultivation of such fruits. For our part we congratulate Mr. Coomber upon his achievement.

The other gold medal was awarded to Messrs. James Veitch and Sons, Limited, for a collection of 100 dishes of Gooseberries, together with standard and trained cordon trees to demonstrate freedom of cropping and other things. Needless to say, the collection was of a highly representative character, and included the finest of dessert kinds among others. We take Langley Gage (green, of medium size) to represent the finest of the dessert sorts, and such as Fearless (green), Golden Gage (a very attractive-looking fruit), Clayton (red), Trumpeter (yellow, very handsome), Lancashire Lad (red), Sulphur (yellow, of good flavour), Alma (green), Succeeded (green, streaked red), London (red, of large size), Stockwell (green, very large), Surprise (green) and Speedwell (red-skinned) to represent the pick of a grand lot. The collection was arranged in shallow baskets, and, filling an entire table, constituted a chief attraction of the meeting.

Red Currants were exhibited by C. E. Baring Young, Esq., Old Hill Park, East Barnet; and Shallot Hill's Champion as grown and lifted came from Mr. C. Moore Kennedy, Keston, Kent. These were a very good sample.

Messrs. Spooner and Son, Hounslow, staged boxes of early Apples Mr. Gladstone and Early Red Margaret.

Messrs. John King and Son, Coggeshall, Essex, received a silver Banksian medal for culinary Peas and Lettuce. Telegraph, Moneymaker, Dwarf Defiance, Quite Content, Dreadnought, The Gladstone and Lord Kitchener were among the freshest of the fifty dishes of Peas shown. Lettuce All the Year Round, Sutton's Favourite, Tom Thumb and Maximus were all well displayed.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), and Messrs. James O'Brien, W. Bolton, J. Wilson Potter, C. H. Curtis, Arthur Dye, H. G. Alexander, J. E. Shill, W. H. Hatcher, J. Charlesworth, T. Armstrong, W. Thompson, A. Sander, Stuart H. Low, Gurney Wilson, F. J. Hanbury and W. H. White.

Orchid groups were chiefly conspicuous by their absence, the only exhibitors being Messrs. Charlesworth and Co., Hayward's Heath, and Messrs. Stuart Low and Co., Enfield.

The chief items in Messrs. Charlesworth's group included *Zygopetalum Brewii* and *Odontoglossum Epicaste* (see "New and Rare Plants"), *Habenaria Susanæ* (white fringed flowers) and *Dendrobium amethystoglossa* (white, red-mauve lip).

Messrs. Stuart Low and Co., Enfield, had nice examples of *Dendrobium suavisimum*, *Odontoglossum Williamsii* (yellow), *Cirrhaea maculata*, *Brassia verrucosa* (greenish cream, with green spotted lip), *Disa grandiflora* and *Oncidium macranthum*. Silver Flora medal.

Sir Trevor Lawrence, Bart., Dorking, sent *Laelio-Cattleya Adolp Harrisoniæ* (sepals and petals white, with mauve spots, and fringed lip) and *Eria rhyncostyloides* (having a raceme of small white flowers).

Mr. R. G. Thwaites exhibited *Laelio-Cattleya Duheus*, with mauve sepals and petals and purple lip, together with *Odontiodas* in variety and *Miltonia vexillaria* Queen Aberconora, with richly-blotched lip. Silver Banksian medal.

NATIONAL ROSE SHOW AT BELFAST.

THE first occasion upon which the National Rose Society had crossed the Irish Sea proved a most successful venture, and although but comparatively few of the English growers put in an appearance, it was, on the whole, a very creditable exhibition. It would have been strange indeed if, coming to their very doors, Messrs. Hugh Dickson did not carry off high honours, and certainly this well-known firm must have been immensely gratified by their achievements. Not only did they win the classes for the Jubilee Trophy, seventy-two singles, twenty-four trebles and others, but they also won three gold medals for new seedlings, quite a triumph in itself. One was not surprised that the Colchester growers failed to appear, for the date was no doubt too late for them, but it was surprising that Scotland had no one to represent her.

In Class 1, for thirty-six blooms, distinct, the Jubilee Trophy, as we have already said, was awarded to Messrs. Hugh Dickson for a grand lot of blooms of full size and of brilliant freshness. The varieties were Coronation (a fine Hybrid Perpetual that secured the medal as the best Hybrid Perpetual in the nurserymen's class, and also one of the gold medals), Lyon, Gladys Harkness, Souv. de Mme. L. Pereira, David Gilmour, H. D. Barton, H. J. Pinkerton, Edward Mawley, Caroline Testout, Charles Douglas, Mrs. F. Hobbs, Mrs. Coxhead, Ethel Malcolm,

Gloire de C. Guinoisseau, Frau Karl Druschki, W. C. Dickson, Mme. Wagram, Mrs. T. Roosevelt, Charles Lefebvre, Archie Gray, Mildred Grant, H. E. Richardson, Queen of Spain, Mrs. S. Clark, Mrs. S. Ross, Königin Carola, Snowball, Mrs. J. Williamson, Victor Hugo, Leslie Holland, Mrs. J. Jamieson and Hugh Dickson. Messrs. A. Dickson and Sons were second with a very beautiful lot of fine colour, but of rather less size. Duchess of Westminster was grand, so also was Messrs. Dickson's new Rose Brilliant. Messrs. S. McGredy and Son were third.

Class 2, for seventy-two blooms, only brought two competitors, Messrs. H. Dickson securing first place and Messrs. A. Dickson and Sons second.

Class 3, for twenty-four trebles, also brought only two lots, and here again Messrs. H. Dickson were first, having grand trios of Mrs. Sam Ross, Leslie Holland and Gloire de C. Guinoisseau. Messrs. A. Dickson and Sons were second, having their grand new Hybrid Tea George Dickson, of wonderful colour and substance.

Class 4, for thirty-six blooms, distinct, secured for Mr. G. Prince the first prize, and for Mr. James Walsh of Portadown the second.

Class 5, sixteen trebles: First, Mr. Prince; second, Messrs. F. Smith and Co., Belfast.

Class 6, eighteen blooms, distinct: First, Mr. G. Prince, and his was the only entry.

In Class 8, for twelve blooms of new Roses, Messrs. Hugh Dickson was again first. His flowers were Marquise de Ganay, Mrs. R. Draper, Mrs. Maynard Sinton, Mrs. Coxhead, Ethel Malcolm, King George V., Souv. de M. Pereire, Mrs. Sam Ross, Mrs. Foley Hobbs, Leslie Holland, Evelyn Dauntsey and Countess of Shaftesbury. Second, Messrs. S. McGredy and Son.

Class 9, twelve blooms of any new Rose: First, Messrs. Hugh Dickson, with Leslie Holland; second, Mr. G. Prince, with Mrs. Foley Hobbs; third, Messrs. S. McGredy and Son, with Ethel Malcolm.

Class 10, twelve blooms of any Hybrid Perpetual: First, Messrs. A. Dickson and Sons; second, Messrs. H. Dickson; third, Mr. G. Prince, all three with Frau Karl Druschki.

Class 11, twelve blooms of any Rose not Hybrid Perpetual, Tea or Noisette: First, Mr. Bentley, with J. B. Clark; second, Messrs. H. Dickson, with Countess of Shaftesbury.

Class 12, twelve blooms of any Tea: First, Mr. G. Prince, with White Maman Cochet; second, Messrs. A. Dickson and Sons, with Mrs. Foley Hobbs; third, Mr. Bentley, with the same variety.

Perpetual-flowering decorative Roses in nine baskets: This class, so attractive a feature at Regent's Park, when there were nine of the great growers exhibiting, only brought out one entry, that of Messrs. H. Dickson, and they had a grand lot—Mme. A. Chatenay, Lyon, Richmond, Mme. Ravary, Killarney, Lady Pirrie, Melanie Soupert, Irish Elegance and Simplicity.

In Class 17, for five baskets, Messrs. S. McGredy and Son were first with Lady Hillingdon, Lyon, George C. Waud, Mrs. A. Tate and Orleans; second, Mr. Elisha Hicks; third, Mr. Mattock.

The decorative Roses were not at all strongly represented. Messrs. Mattock secured first place with a very beautiful lot in Class 20, for eighteen varieties; second, Messrs. Hugh Dickson.

In Class 21, for twelve varieties, Mr. Hicks was first, Mr. Prince second and the Rev. J. Pemberton third.

All the above were either for nurserymen or open to all growers. In the amateurs' classes the blooms were remarkably good, that in which Mr. Dennison of Leamington carried off the Jubilee Trophy being really superb. It was for twenty-four blooms, and a brighter lot we have seldom seen. Second, Mr. Boyes; third, Mr. J. H. Welch.

Class 23, for thirty-six blooms, open to all amateurs, secured for the Rev. J. Pemberton the first prize, and it was a very fine lot for the president of the National Rose Society to set up; second, Mr. H. V. Machin; third, Mr. Boyes.

In Class 24, for eight trebles, Mr. Dennison was first, Mr. Machin second and Mr. Dunlop third.

Class 25, for nine blooms of any Rose except Tea or Noisette: First, Mr. C. Hall, with Duchess of Portland; second, Mr. H. V. Machin, with Mrs. T. Roosevelt; third, Mr. Dennison, with Frau Karl Druschki.

In Class 42, for twelve distinct varieties of decorative Roses, the Rev. J. Pemberton was first for a very lovely lot, among which I noted his two seedlings, Moonlight and Danse, very interesting additions to our garden Roses because of their perpetual-flowering character.

In Class 44, for an exhibit of cut Roses for table decoration, Mrs. Burnett of Southampton won first with Old Gold, a sure precursor of the value of this Rose for the purpose. Mrs. Williamson was second with Irish Elegance, and Mrs. Atkinson third with Lyon Rose.

In Class 46, for a vase of cut Roses, Mrs. Williamson was first with Mrs. F. Straker, Mrs. Johnstone second with Lyon Rose, and Mrs. Stewart third with Lady Battersea.

NEW SEEDLING ROSES.

Five gold medals were awarded on this occasion, and although there was nothing sensational, yet some really good things secured this coveted honour. One that exhibitors will welcome was H. Veasey Machin, a magnificent flower of very solid proportions and of a most lovely rich scarlet-crimson colour. The edges of the petals reflex very prettily. It reminded me of Earl of Dufferin; indeed, it seemed to combine this Rose with that of George Dickson, a variety that was shown in superb form by the raisers of both, Messrs. A. Dickson and Sons of Newtownards. These noted raisers are trying to meet the

long-felt want of good crimsons, and certainly they have succeeded far beyond our expectations, and I look forward to the time when they will adorn every show-box. I should say in regard to H. V. Machin that it will also be in every garden, every shoot bearing flower-buds and the growth of quite ordinary vigour, not too rampant.

Messrs. H. Dickson obtained gold medals for the following three: Mrs. R. D. McClure (Hybrid Tea), a superb colour, a lovely soft rose pink, with a suspicion of salmon or even Lyon shade. The growth is also vigorous. H. E. Richardson (Hybrid Tea), of the colour of Horace Vernet, perhaps somewhat thin, but as a garden Rose will be a glorious gain; the fragrance is delicious. Coronation (Hybrid Perpetual), a massive flower of most perfect exhibition form and very double. The colour is a delicate peach pink, something of Her Majesty shade, but more like the build of a very good Lady Mary Fitzwilliam, only much more double.

Messrs. S. McGredy had a glorious array of seedlings, and they obtained a gold medal for Lady Mary Ward, a variety of reddish gold colouring, suggesting Duchess of Wellington in form. Silver-gilt medals also went to the same firm for Colleen, a most exquisite Rose of Killarney colouring, only of a warmer hue and with such wonderful big petals. I doubt if we shall be able to get this fine Rose yet, for I understand Mr. E. G. Hill has bought the rights to distribute the Rose in America. He says it will beat any Rose they have over there for commercial forcing, and doubtless he is about the best judge we have on either side in this line. British Queen is a grand white, reminding one of Mrs. H. Stevens, only larger and of more double form. It is like a blending of Mrs. David McKee and Mrs. H. Stevens. Messrs. H. Dickson also obtained a gold medal for Mrs. James Lignas, a Rose of the form of Melanie Soupert, but more double and of a lovely blush peach shade. The medal blooms were as follows: Nurserymen: Best Hybrid Perpetual, Coronation; best Hybrid Tea, George Dickson; best Tea, Mrs. Foley Hobbs. Amateurs: Best Hybrid Perpetual, Gloire de Chedane Guinoisseau; best Hybrid Tea, William Shean; best Tea, Mrs. Myles Kennedy. Thus it will be seen that five out of six Roses gaining this high distinction were raised in Ireland. P.

MANCHESTER SHOW.

THE Royal Botanical and Horticultural Society held their show on July 12 and 13 under marquees at the White City, Manchester, and for some unexplained reason the entries were of a meagre description throughout.

Roses.—For thirty-six distinct trusses Messrs. W. and J. Brown of Peterborough were the only competitors, and were awarded first prize. The flowers were bright and fresh, the best being Mildred Grant, Avoca, Ulster, Dean Hole, Horace Vernet and Claudius.

For twelve Teas or Noisettes Messrs. Brown had another walk-over. The best flowers were Maman Cochet, Mrs. E. Mawley and Mrs. M. Kennedy.

For twelve trusses of any white or yellow Messrs. Brown again scored with Frau Karl Druschki, and for any crimson with Mrs. A. G. Coxhead.

For twenty-four trusses, for amateurs, Mr. R. Foley Hobbs was well to the fore with good blooms of Gloire de Chedane Guinoisseau, which secured the silver medal as the best Hybrid Perpetual or Hybrid Tea in the show. Mr. R. Park of Bedale was second. For twelve distinct trusses the same competitors staged, but the positions were reversed.

For eighteen Teas or Noisettes Mr. R. Foley Hobbs was again to the fore, having a good Mrs. R. Foley Hobbs, which was awarded the silver medal for the best Tea or Noisette in the show. Mr. R. Park was second. For twelve varieties the prizes were awarded in the same order.

For twelve of any white or yellow Mr. Hobbs was first with Bessie Brown. Mr. R. Park and Mr. J. Holt took the remaining prizes.

For twelve light-coloured Mr. Hobbs won with an excellent box of Her Majesty.

For twelve crimsons Mr. Park scored with A. K. Williams.

For twenty-four trusses (amateurs within twenty miles of the show), Mr. A. G. Hogg of Altrincham was successful; Mr. W. Cowley second. For twelve trusses the prizemen were Messrs. J. Holt, A. M. Buxton and C. E. Marshall; and for six trusses Messrs. C. Burgess, P. Wilkinson and J. Holt were placed as named.

For twelve bunches, suitable for button-holes, Messrs. Brown were first with good flowers; and for the display also had a walk-over.

Messrs. O. Robinson, A. Adshead and A. J. A. Bruce were placed as named for a basket of Roses; and for three bouquets Messrs. Adshead and Brown were first and second respectively.

Sweet Peas.—For the best collection of not less than fifty or more than one hundred vases, Mr. F. A. Robinson was worthily accorded the place of honour for splendid types of flowers. Very fine were Vermilion Brilliant, Melba, Maud Holmes and Nubian. Messrs. Castle Brothers, Warton, and Messrs. Faulkner and Aitken took the remaining awards.

For twelve vases Mr. C. Burgess took the lead, Edna Unwin and Mrs. W. P. Wright being good; second, Mr. J. S. Procter; third, Mr. S. T. Brittain.

For twenty-five vases Mr. A. Beith of Knutsford was the only exhibitor, staging good spikes of Mrs. Hugh Dickson and Sunproof Crimson.

Mr. O. Robinson was first for one bouquet, of much merit.

For a group of miscellaneous plants Mr. J. Cypher took the premier award with a handsome combination, in which Crotons, Miltonias, Oncidiums, Cattleyas and Ixoras were charming. Mr. J. Sharp of Huddersfield was second.

For the best group, not less than 100 square feet, Mr. J. Kaullmann of Fallowfield was first, in which Gloxinias, and Begonias were excellent.

For a display of herbaceous cut flowers Messrs. Caldwell and Sons of Knutsford were first, including good Lilies, Spiraeas and Phloxes.

BIRMINGHAM HORTICULTURAL SOCIETY.

THE first show of this society, formerly the Handsworth Horticultural Society, was held in Handsworth Park on Friday and Saturday, July 19 and 20. The ambitions of Birmingham are commendable, and their ultimate aim is to run the largest show in the provinces. Shrewsbury and Wolverhampton must look to their laurels. The opening ceremony, performed by the Lady Mayoress, was marred by inclement weather, the heat wave of the preceding days giving place to cold, gusty winds and sharp showers. There are possibilities of a big future for this show, but we would suggest that better facilities be provided for the horticultural Press. Enlarged experience will doubtless lead to better organisation. On the whole, the exhibits were of a really high-class standard, the non-competitive groups being exceptionally good. Much confusion was caused by the indiscriminate placing of the exhibits in various classes, exhibits in one class being placed in several different tents. We noticed with some amazement that the judges were engaged in their work at 5.30 p.m. on the first day. The usual side shows associated with Shrewsbury and like institutions were in evidence.

COMPETITIVE CLASSES.

In the class for a decorative group not exceeding 300 square feet, Messrs. J. Cypher and Son, Cheltenham, put up a very fine collection of well-grown plants, which included Humea elegans, Codiaums, Cattleyas, Odontoglossums, Lilliums, Caladiums, &c. From a rustic arch erected in the centre of the group were suspended pendulous Selaginellas, Asparagus Sprengeri, &c. This exhibit carried off the silver challenge cup. Sir G. Kenrick (gardener, Mr. J. V. McDonald) gained second prize with a creditable exhibit of Codiaums, Odontoglossums, Caladiums, &c., with a groundwork of Ferns and small stove plants. The colour blending was capital.

The first prize in the rock and water garden class went to Messrs. Gunn and Sons, Birmingham, for a very pretty exhibit; but is it fair to exhibit Phloxes, Lilliums, &c., in classes of this description? While certainly attractive, the exhibit could not be termed a rock garden. The exhibit awarded second prize was a rock and water garden pure and simple. This was set up by Messrs. W. B. Child and Co., Acock's Green, and took the form of a miniature rocky gorge spanned by a rustic bridge. Tiny conifers, stout Sedums and choice alpine plants and Irises made a fine show.

For twelve specimen stove or greenhouse plants, Messrs. Cypher gained first prize. Their splendid collection included Allamanda nobilis, A. Hendersonii, Bougainvillea sanderiana and Codiaum Warrenii. Mr. William Vause, Leamington, took second prize with good specimens, which included Stephanotis floribunda and Codiaums among other good material.

In the class for a display of Sweet Peas, to occupy a space 20 feet by 4 feet, the silver cup and special gold medal were won by Messrs. Herd Brothers, Penrith, whose exhibit was over the prescribed limit. Romani Rauni, Hercules, Melba and Elsie Herbert were very good. The second prize and gold medal went to Mr. J. Stevenson, Wimborne, who restricted his exhibit to the stipulated size and showed good specimens of Lady Evelyn Eyre, Maud Holmes and Clara Curtis among others. The third prize and silver medal were won by Messrs. Holder and Co., Erdington, for a very neat display.

The silver challenge cup, for twenty-four bunches of Sweet Peas, was awarded to Sir R. Graham, Bart., Carlisle (gardener, Mr. George Hallett).

Messrs. Gunn and Sons, Olton, Birmingham, won the silver cup for the best collection of Roses with a splendidly-staged exhibit in fine condition. Killarney, Miss Alice Rothschild, White Killarney and White Maman Cochet deserve special mention. Messrs. W. and J. Brown, Peterborough, were second in this class.

Messrs. W. and J. Brown, Peterborough, gained first prize for twelve Tea Roses, the best of which were W. R. Smith, Mrs. Foley Hobbs and Maman Cochet.

Shrewsbury's supremacy in the fruit classes was not seriously threatened, but the Manor Fruit Farm, Knowle, captured the two first prizes for Grapes, black and white. The classes for other fruits were poorly filled, and the produce shown was not at all above the ordinary.

NON-COMPETITIVE EXHIBITS.

Messrs. Hewitt and Co., Solihull, staged a nice collection of hardy perennials and Roses.

Messrs. W. H. Simpson and Sons, Aston, showed a grand collection of Sweet Peas. Prominent were Edrom Beauty, Winsome, Elfrida Pearson, Coronation, Florence Nightingale and Senator Spencer.

Messrs. R. J. Barnes and Son, Malvern, staged Sweet Peas and climbing Roses.

Messrs. G. Gibson and Son, Bedale, showed perennials and Roses.

Messrs. Bakers, Wolverhampton, occupied one end of the large tent with a collection of Roses and hardy perennials. The foreground took the form of a water garden, backed by a wall garden.

Messrs. Sutton and Sons, Reading, erected a magnificent exhibit of fruit and vegetables. Among a host of well-arranged produce the Melons stood out predominantly, Ringleader, Superlative and Triumph proving the envy of all beholders. Fine fruits of Egg Plant Sutton's Purple

were noticeable. This grand collection was admirably finished off with Gloxinias, Lilliums, Stocks and hardy perennials.

Messrs. Young and Co., Cheltenham, showed perpetual outdoor Carnations. Duchess of Devonshire, the new Lady Henderson, Cheltona, Queen, Greswolde Williams, A. S. Montgomery and Winsor were shown in great style. This exhibit was grown entirely outdoors without the aid of any shelter. One of the best exhibits of perpetual Carnations ever staged in the Midlands.

Mr. MacDonald, Harpenden, reproduced his Holland House exhibit of ornamental grasses and turf.

Mr. H. Masters, Grove Lane, Handsworth, showed Violas, including M. Templeton.

Messrs. Webb, Wordsley, Stourbridge, had a prettily-arranged circular stand in the second tent, the base of which was made up with fruits and vegetables in variety. The centre comprised masses of Astilbes, the whole being surmounted by arches of Sweet Peas, the crowning plant being a fine Cocos. Well-shaped Cucumbers, Melons and Tomatoes were prominent in this exhibit.

Messrs. Rich and Co., Bath, showed hardy perennials.

Messrs. G. Stark and Son, Sweet Pea specialists, Great Ryburgh, Norfolk, staged a fine collection of Sweet Peas in great variety. We noted especially Fair Maid, The Abbot, White Queen (which seems to feel the effects of the sun), Stark's Salmon and their new Decorator.

Mr. A. F. Dutton, Iver, Bucks, showed a good exhibit of Carnations, including Mrs. Lawson, Mikado, May Day and Niagara.

Mr. Arthur R. Brown, Wychall Nurseries, King's Norton, staged Roses in vases, but the effect was spoiled by light packing. Princess Marie Mertchersky was good.

Mr. H. N. Ellison, West Bromwich, staged a collection of Cacti and Ferns, including the new Pteris Parkeri. A most interesting and well-arranged group.

Messrs. John Peed and Son, West Norwood, brought a rare good batch of Caladiums, the best of a fine lot being John Peed, Lord Penrhyn, Duchess of Teck and Comtesse de Brosse.

Messrs. Jarman and Co., Chard, showed Sweet Peas, Roses and other flowers. Their new Centaurea The Bridegroom attracted much attention.

Mr. Douglas Leigh, Hampton-in-Arden Nurseries, staged Roses and perennials.

Messrs. Blackmore and Langdon, Twerton, Bath, staged some fine specimen blooms of tuberous Begonias. Among many perfect blooms were Kennerley Rumford (a delicate orange), the white Mrs. J. Thornton, William Marshall (a vivid scarlet) and some capital frilled singles. The Begonias were arranged with a background of Tree Carnations, an effective combination.

Messrs. Godfrey and Son, Exmouth, had some very good blooms of Romneya Coulteri, Oriental Poppies and Antirrhinums.

Messrs. Clibrans, Altrincham, staged a large collection of Sweet Peas and Violas, charmingly arranged.

Roses were shown in good style by Messrs. J. Mattock and W. T. Mattock, Oxford.

Messrs. J. Walker and Son, Triumph Rustic Works, Witton, Birmingham, showed their well-known rustic work in the form of arbours, seats and screens.

The British Gardeners' Association had a hut surrounded by rockwork and decorated with a huge facsimile of their now well-known badge. Judging by the number of callers, business was brisk with them.

NORFOLK AND NORWICH HORTICULTURAL SOCIETY'S ROSE AND SUMMER SHOW.

"A GREAT success" was the general verdict accorded to this fixture, which was held on Thursday, July 4, in Chapel Field Gardens, the chief park of the City of Norwich. Great credit was due to Mr. J. Ward, the Parks Superintendent, for the splendid condition and cultural skill of everything under his charge. Mr. C. E. Pilling, the hon. secretary, worked with his staff so well that with a total entry of 481 exhibits everything passed off satisfactorily.

In the open classes Mr. B. R. Cant took first and silver medal for forty-eight distinct Roses; first for eighteen varieties, three blooms of each; and first for twelve new varieties. Messrs. G. Burrell and Co. were first for eighteen Tea or Noisette, other notable exhibitors being Messrs. F. Cant and Co., Messrs. A. J. and C. Allen, and the Rev. J. A. Fellowes.

In the amateur classes the silver cup and first prize for the best thirty-six distinct were secured by the Rev. J. A. Fellowes; this ardent local rosarian was also first for eight varieties, three blooms of each, twelve Tea or Noisette, twelve one variety Tea or Noisette, twelve any other than Tea or Noisette, and for twenty-four distinct varieties, which anyone must agree was a great achievement, because many of these classes were strongly contested. Captain Francis took three firsts in the smaller classes. The National Rose Society's medal for the best Tea shown by an amateur was secured by Miss Penrice for a grand Maman Cochet; and the medal for a Hybrid Perpetual was secured by Mr. R. Steward with a grand Frau Karl Druschki.

Sweet Peas, as is evident nowadays at most mixed summer shows, were in great preponderance. The silver cup for the best twenty-four distinct bunches was well won by Mr. W. Quinn, gardener to Lord Stafford, Costessey Park: his blooms were wonderfully fresh and intense in colour. The best twelve bunches came from Mr. F. Wilby, gardener to F. A. Bainbridge, Esq., Hethersett, with massive, sturdy flowers. Mr. T. Notley, gardener to E. G. Buxton, Esq., had the best vase, daintily arranged.

In the exotic cut-flower class, Mr. W. Hilson, gardener to Sir Frederick Adair, Flixton Hall, was first. Without doubt a great, if not the chief, feature of the show

was the marvellous group of herbaceous flowers staged by Mr. Lewis Smith, gardener to Robert Fellowes, Esq., Shotesham Park; it contained over sixty distinct bunches. It won the president's prize and also the Royal Horticultural Society's medal as the best exhibit in the show. Congratulations were bestowed upon Mr. Smith by his fellow-craftsmen for his superb effort.

Of the trade exhibits, which were a great feature, Messrs. Daniels Brothers, Limited, Norwich, made the best display they have ever done, most comprehensive and interesting. Messrs. A. J. and C. Allen, Earham, Norwich, had Roses of all kinds, and of the latest, in abundance. Mr. G. W. Miller, Wisbech, displayed Orchids and herbaceous flowers. Mr. H. Morse, Westfield, Eaton, and Mr. E. Morse, The Dell, Eaton, vied with each other with Roses. The attendance was 5,656, and the gate-money £140 exclusive of subscribers.

BOURNEMOUTH GARDENERS' ASSOCIATION'S SWEET PEA AND ROSE SHOW.

ON Wednesday, July 3, this society held a most successful exhibition of Sweet Peas and Roses in the Westover Palace Rink.

SWEET PEAS.

In Class 1, for the best and most tastefully-arranged display of Sweet Peas with any foliage, Mr. Evans, gardener to G. J. Fenwick, Esq., was first; Mr. Weaver, gardener to Major Tinker, Christchurch, second.

For a dinner-table decoration of Sweet Peas and any foliage Mr. G. Garner was first, Mr. Evans second, and Mr. Weaver third, all the winning exhibits being low and very light.

For nine vases of Sweet Peas with own foliage Mr. Cox was the winner, the varieties Mrs. Hugh Dickson, Maud Holmes and Thomas Stevenson being very fine as regards substance and colour. Mr. Weaver was second.

Messrs. Cox, W. Weaver and C. Pearce, the last named gardener to Mrs. Ormond, were the winners in the order named in the class for three vases, distinct varieties.

ROSES.

Mr. Weaver had the best display of Roses, with any foliage, arranged on a table space 3 feet by 3 feet.

For six vases, distinct, Mr. G. Cockman was the winner.

For three vases Messrs. E. G. Cox and C. Pearce were the winners in the order named.

Messrs. Pearce, Cox and Evans won in the order named for a bowl of Roses, any variety, with own foliage.

Mr. Garner had the best basket of Roses with own foliage, Mr. Evans being second.

Mr. Garner was first for a shower bouquet, any foliage, Rose blooms only to be used.

Mr. Douch had the best Hybrid Perpetual Rose separately staged, showing Margaret Dickson; and Mr. G. Cockman had the best Hybrid Tea Rose separately staged.

NON-COMPETITIVE EXHIBITS.

These were very fine indeed. Mr. J. Stevenson, Wimborne, Dorset, had a grand lot of Sweet Peas, staging about sixty vases, occupying a table space of 50 feet run. Few finer quality collections will be seen in England this year.

Messrs. D. Stewart and Sons, Wimborne, had about one hundred vases of cut Roses, backed by beautiful climbing varieties in pots.

Messrs. G. Watts and Sons, Limited, put up a group of miscellaneous plants, also cut blooms of Carnations, Sweet Peas and Roses.

Messrs. T. K. Ingram, Parkstone, Dorset, and Evans, Bournemouth, had lovely groups of foliage and flowering plants, and the Park Nurseries (Mr. Welch, manager) arranged a charming circular group, chiefly of flowering plants.

Mr. Elford, Bournemouth, had lovely Carnations; Mr. Maurice Prichard, Christchurch, a large table of herbaceous cut flowers, very choice; Mr. Clark, Michelgrove House, Boscombe, a table of new and choice Roses in vases; Mr. W. Reeves, Sweet Peas; and the Christchurch French Gardening Company, salads and vegetables in a very clean, fresh condition.

The excellence of the show was a pleasant surprise to the public, and very gratifying to the committee responsible for its arrangement.

*** Owing to the demands on our space we are compelled to hold over the reports of the Saitaire, Dunfermline and East Anglian Shows, also an account of the Horticultural Club's Outing.*

THE EDITOR'S TABLE.

A Pink from Germany.—We have received from M. Otto Mann, Leipzig-Eu., Germany, some flowers of a new Pink named Jewel, which, we understand, is intended to be introduced in September, 1913. The new variety is a sport of the famous Pink Delicata (introduced by M. Otto Mann in 1908), but has no fringe-edged petals. The colour, being of a fine deep pink with lighter centre, is sure of a welcome both for indoor decoration and for garden effect. The flowers arrived in good condition, enabling us to see their beauty, and proving that the variety is able to travel well and withstand a long journey.

Prizes at the National Vegetable Society's Show.—Messrs. Dickson and Robinson, Cathedral Street, Manchester, inform us that they have just discovered that they omitted from the terms of their prizes offered for Classes 26 to 39 inclusive at the forthcoming National Vegetable Society's show the words "trade included."

The London Vacant Land Cultivation Society. The fourth annual meeting of this society was held on July 12 at the residence of Baron de Forest, Spencer House, St. James's Place, W. The chair was taken by Mr. Frank Smith, L.C.C., who stated that in four years the 500 plot-holders had raised for use or sale £7,000 worth of vegetables and flowers on waste land in London. In the present season the rows of vegetables in a continuous line would extend to 100 miles and the flowers to 10 miles. Exhibits by the plot-holders were much admired by the subscribers and friends present. The hon. secretary is Mr. Joseph Fels, 39, Wilson Street, E.C., and the superintendent, Mr. R. L. Castle. More land is urgently needed for 600 applicants.

"Country Life" for July 27 contains, among other articles, an illustrated account of "Chilham Castle, Kent," by Arthur T. Bolton; "Tale of Country Life: The Empty Pipe," by Theodore Goodridge Roberts; "In the Garden: New Roses of the Year" (illustrated); "The Most Famous Hunting Tapestries.—II." (illustrated), by W. A. Baillie-Grohman; "Wild Country Life," by H. A. Bryden; "The 'Rhino,'" by John Parkinson.

OBITUARY.

WILLIAM COMFORT.

WE regret to record the death of Mr. William Comfort, which occurred at 3, Castlegate, Berwick-on-Tweed, on the 14th inst. Mr. Comfort was one of five brothers, who all followed the ancient craft of gardening, their father being a pupil of the famous Charles Mackintosh, first at Claremont, and then at Dalkeith Park. Mr. Comfort received his early training in Aberdeenshire, his native county, after which he acted as foreman at Altyne, Forres. He acted as head at Maryhill, Elgin; Aberlour, Banffshire; Farnley Hall, Otley, Yorkshire; Knowle Hall, near Birmingham; and Kylemore Castle, County Galway, Ireland. While at Knowle Hall, Mr. Comfort was a successful exhibitor of Chrysanthemums and Grapes at several of the surrounding shows. He had no issue, but is survived by his wife. Mr. Comfort, who was in his sixty-sixth year, retired from active service six and a-half years ago.

TRADE NOTE.

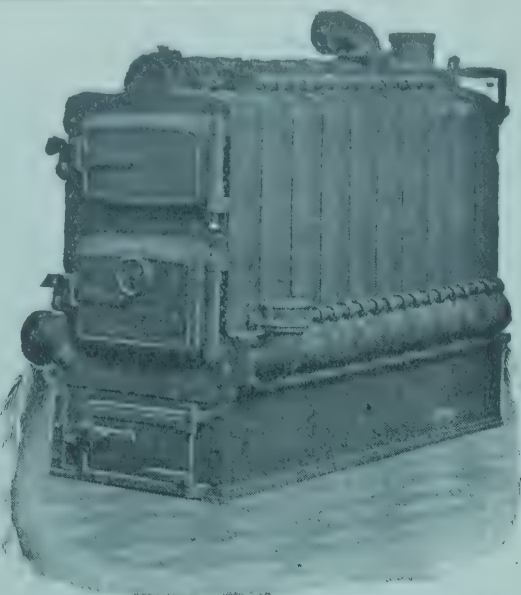
A USEFUL TYING MATERIAL.

DURING the summer months there is a great demand for good tying material in the garden, and the wise gardener, be he amateur or professional, always keeps a good supply handy. Until recent years bast, or raffia, was regarded as the only substance that could be used with safety; but since the advent of "Greentwist" it has, in many gardens, had to take a back seat. "Greentwist" is a soft, silk-like string of natural green hue, and is manufactured by Messrs. Robertson, Ireland and Co., Dundee. It is cheap, does not injure the softest stems, and is sold in neat cartons that prevent it becoming entangled, and which may be carried in the pocket. We recommend "Greentwist" to all our readers as a good and reliable tying material.

GARDENING APPOINTMENT.

MR. JOHN BEDDOES, for nine years head-gardener to the late Mr. and Mrs. F. Bradley, Thornton Hall, Childer Thornton, Chester, has been appointed head-gardener to J. Watson-Hughes, Esq., Coed du Park, Rhydymwyn, Flintshire.

*** The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.*



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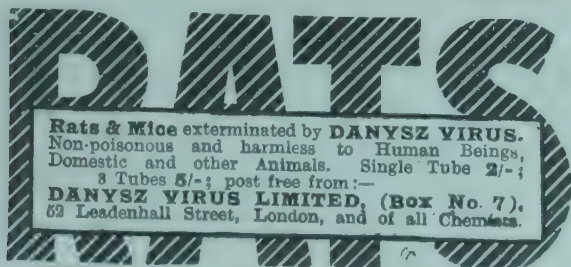
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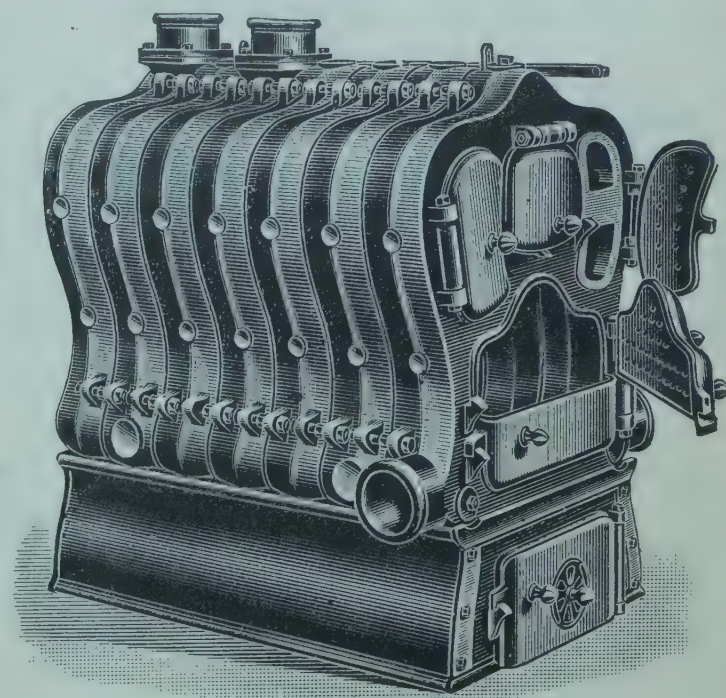
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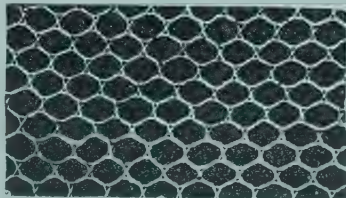
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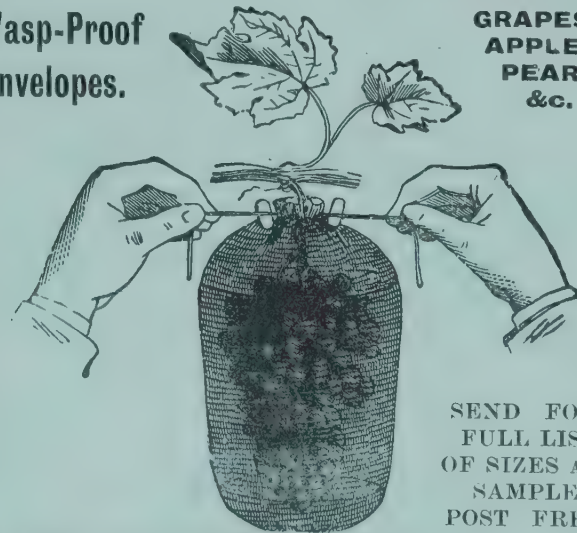
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THE GARDEN.

No. 2124.—VOL. LXXVI.

AUGUST 3, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 25, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Variation in Black Currant Boskoop Giant.—

At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. Charles Pearson sent shoots of Black Currant Boskoop Giant to illustrate a variation which had apparently suddenly arisen in several localities. The leaves become much more dentate and the bushes fail to fruit. Sometimes only a portion of the bush is so affected, but frequently the whole, and in one plantation 50 per cent. of the bushes showed the variation. The committee would welcome any observations that would throw light upon the phenomenon. It has been suggested that possibly hard pruning may have brought about the result, but there is no record so far of reversion.

A Beautiful Hardy Heath.—*Erica cinerea* is our commonest British Heath, for, in companionship with the Ling (*Calluna vulgaris*), it is met with in all parts of the country covering commons and hillsides and making a blaze of colour from July to September. Although some difference of colour is noticeable among plants growing under natural conditions, there is no great variation from the typical crimson-purple. Horticulturists, however, have developed a number of varieties which differ widely in colour of flowers from the type, thus providing an excellent group of plants for the garden. Of these varieties alba and alba minor, with white flowers; purpurea and atropurpurea, with light and deep purple respectively; atrosanguinea, with deep red; coccinea, with scarlet; and rosea, with rose-coloured flowers, are among the most conspicuous. With the type and this set of varieties it is possible to create a very showy feature either in the wild garden, in beds on the lawn, or in the rock garden, the effect being, of course, most pleasing when each kind is used separately and with a generous hand.

Origin of Sweet Pea Countess Spencer.—The current issue of the Journal of the Royal Horticultural Society contains some new and interesting particulars concerning the origination of Sweet Pea Countess Spencer, the first variety with a waved standard. As all the world knows, Mr. Cole, at that time gardener to Earl Spencer, raised it in 1901, first by crossing Lovely with Triumph, and then the best of the progeny of that cross with Prima Donna. Now, in a letter to Mr. W. Cuthbertson, J.P., relating to a lecture on Sweet Peas given by him before the Royal Horticultural Society, Mr. Viner of Somerset Road, Frome, states that in 1901 he saw a spray of what we now know as Countess Spencer in Prima Donna, the seeds of which he saved, and the following year five out of seven plants retained the waved character. Blooms from these were shown at the Bath Show in July that year under the name of Nellie Viner and gained a certificate. Eventually Mr. Viner

disposed of the stock to Mr. Henry Eckford, who, learning that the variety Countess Spencer was similar, dropped the name of Nellie Viner and put his stock on the market as a superior Countess Spencer. Mr. Cuthbertson, in sending Mr. Viner's letter to the Royal Horticultural Society, states that he is practically convinced that Countess Spencer appeared as a mutation in Prima Donna in several places in Great Britain the same season.

The Flowering Rush.—The Flowering Rush (*Butomus umbellatus*) is an instance of a common British plant which is well worth introducing into the garden where it does not already exist, for several instances have been noted lately where its use has been attended by the happiest results. A marsh or water loving plant, it is excellent for using about the margins of a lake or stream, where it makes a change from the all too common Sweet Flag (*Acorus Calamus*). The Flowering Rush grows 3 feet to 4 feet high, and is so-called on account of its Rush-like foliage. That it is quite distinct from the ordinary Rushes is evident by its large umbels of rosy red flowers, terminating tall stems, which appear from late June to August, according to the locality. During the hot days of summer the bog and water garden, especially the latter, have a peculiar charm, and the opportunity should not be lost of jotting down any particularly effective plant with an eye to its introduction to other quarters at a fitting season. It is also a good time to plan alterations and a redistribution of plants, and while this is being done we specially commend the species under notice to the gardener's attention.

Australian Pepper.—Under this heading, in answer to a correspondent ("T. B. F.") on page 359 of our issue for July 13, we gave the name of the Australian Pepper Plant as *Piper Novæ-Hollandiæ*, which was perfectly correct, though the name Pepper Plant is also ascribed to *Drimys aromatica*. Some further facts relating to these two plants may be of interest to our correspondent, as well as to our readers generally. The Piper, which in the vernacular is known as the Climbing Pepper or Native Pepper Vine, is a native of New South Wales and Queensland, and is one of the largest Australian creepers, climbing, like Ivy, to the tops of the tallest trees. At one time it was well known in Australian medicine, having the reputation of being "an excellent stimulant tonic to the mucous membrane." The wood is coarse-grained, and very pungent when freshly cut. *Drimys aromatica* is a close ally to the well-known Winter's Bark Tree of the Straits of Magellan (*D. Winteri*), belonging to the Natural Order Magnoliaceæ, and at one time noted as an aromatic tonic. *D. aromatica* is a native of Tasmania, Victoria and New South Wales, where the fruit is used as a condiment. The leaves have a pungent cinnamon-like flavour, hence probably its name of Pepper Tree,

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Myxomycetes.—In our note to Mr. Watts' letter on exhibiting Daffodils, which appeared on page 374 of last week's issue, this word, owing to a misprint, appeared as "Myxomyates."

Curious Laburnums.—There are quite a number of specimens of Laburnum Adami in Scotland. The curious thing is that people are so slow to learn of the existence of Laburnum Adami, although it is a comparatively common tree in places where out-of-the-way subjects of the kind are cultivated.—S. ARNOTT.

An Early Pear.—Pear Doyenné de Eté is very delicious this season and quite ready for use. The blackbirds find this out very quickly, and nets must be at once put over the tree, or the birds will soon make short work of the fruits, as they are very sweet and juicy. Anyone not growing this very early variety should make a note of it and plant it in the autumn. It is a free-growing variety and crops in a prolific manner. The fruits should, however, be consumed as gathered from the tree, as they will not keep.—W. A. COOK.

Rambler Roses.—I have never seen the flowers more richly coloured than they are this season. The variety Dorothy Perkins is flowering and growing more freely than in previous years, and the blossoms are very rich in colour. Many strong young shoots are growing beyond the trusses of flowers, and, unless they are required for filling up space, they must be cut out. The older wood should also be freely cut away where there are plenty of strong young shoots to take its place. This work ought not to be left until the end of the autumn or next spring, but be done at once.—B.

Rose Lady Godiva as a Weeping Standard.—I was glad to see the note on the above in THE GARDEN of July 27. Lady Godiva is really one of the very best Roses for this purpose, its slender, pliant growth and its lovely flowers giving it a most beautiful appearance when so grown. I saw, the other day, some fine weeping standards of Leuchstern, Gardenia, Una, Flora, Hiawatha, Aglaia, Ruby Queen, Dorothy Perkins and others, and none could surpass Lady Godiva in elegance. Gardenia is very fine in its way. By the way, I am glad to see that the writer of the note has a high opinion of Leontine Gervaise, which in my garden is one of the most beautifully coloured among a rather good variety of rambling Roses.—SUB ROSA.

Rose Conrad F. Meyer.—We can all appreciate "Avon's" remarks on this Rose, published in THE GARDEN recently. This plant is generally considered an obstinate Rose to grow practically in all parts of the country. "Avon" says he has seen a fine plant in the South. There is also here in Midlothian a fine specimen of this Rose growing over an arch doing as well as one could wish for. About a fortnight ago it was showing over four hundred blooms, and has every prospect of flowering for another month and more. The fault lies, as a rule, in trying to grow this Rose as a bush, and, in consequence, being severely pruned. This Rose simply hates the knife, and should hardly be pruned at all; but if allowed to grow over an arch or a similar device it will, I am sure, give every satisfaction by flowering profusely from June to September.—H. J. S.

Rosa nitida.—Lovers of the Rose species always find in the little Rosa nitida a plant worthy of admiration at practically any season. At present its main attractions lie in its glossy foliage and its lovely bright red or deep pink flowers, which are being very freely borne this season. Possibly, however, these charms of the summer are eclipsed by those of autumn, when the foliage passes off through shades of red, orange, &c., to almost purple, and when the branches show their deep red colouring, and the hips, which come freely, their bright scarlet among the foliage. R. nitida is only about two feet high, and as it grows freely it can be planted with confidence. It does not appear too fastidious as to soil, but I think it colours best on a poor and rather dry one. It soon increases by means of suckers.—S. A.

Rose Tea Rambler in Cold Districts.—Experience of the lovely Rose Tea Rambler modifies the high opinion one formed of it at first, and for cold districts or those subject to late frosts in spring it is to be feared a word of caution is necessary. It makes strong growths, which, however, are late in ripening and very liable to be destroyed in spring. This is the experience of the writer, but it is by no means an isolated one, as one finds on making enquiries among others who have tried this really beautiful Rose. It has many points of beauty, from its handsome foliage, the young strong shoots of which are so finely coloured, to the delightful flowers. One is, therefore, reluctant to do without it, yet a succession of seasons in which it has been badly cut makes one long for something like Tea Rambler, but more capable of standing late frosts in the colder parts of the country.—A.

The Scarlet Martagon Lily.—Lilium chalcedonicum shares with L. croceum and L. candidum the credit of being one of the best of garden Lilies, while the disease which often proves fatal to L. candidum does not trouble it. A member of the Martagon group, L. chalcedonicum always arrests attention by reason of its prettily-reflexed, bright red blossoms, which are, as a rule, borne from early in July onwards. In common with several others of the Martagon section, the stem roots are but sparingly produced; therefore the main support of the plant is derived from the stout, thong-like roots at the base of the bulb. From this circumstance it will be readily understood that L. chalcedonicum is scarcely likely to be seen at its best the first season after planting; indeed, it takes two or three years to become thoroughly at home. A deep, well-drained loam suits it well, and this, combined with its objection to removal, accounts for this Lily being frequently seen at its best in cottage or farmstead gardens, where the practice of letting well alone prevails to a great extent, and changes are decidedly infrequent.—H. P.

Fruiting of the Mulberry Tree.—In reference to the note on the flowering and fruiting of the Mulberry tree, page 361, July 20 issue, I should like to state what my observations lead me to think is the cause of fruit only being produced upon some branches and only catkins upon others. On taking charge of the garden here some twelve years ago, I advised my employer to let me cut back many branches of a very large old tree which overhung the grass and borders too much, and I continued to prune rather freely for the first four years. I did not notice any great difference in the fruitfulness of those branches not cut till three years ago, and this season it is more marked than ever, the parts pruned back being full of vigour and bearing berries only. Those branches that

have not been cut back have a very starved appearance and produce catkins only. I should, therefore, think the cause lies in the pruning and the fact that a large tree in full vigour so shades itself in various parts that its branches do not all get matured alike.—W. MANNING, *The Hermitage, Lewisham Hill, S.E.*

Judges Judged.—I was much interested in Mr. Jenkins' letters in the issues of THE GARDEN dated July 20 and July 27 respectively in reference to the disqualifications at the recent National Sweet Pea Society's Show. In my usual notes on the Queen of. Annuals I alluded to the subject and took the same view as Mr. Jenkins—that the judges had no power to go beyond disqualification. My firm opinion is that the rules of a society are equally as binding on the judges as they are on the exhibitors, but this is not accepted by many adjudicators. I think it would be for the general good of horticultural shows if the Editor would secure the views of such renowned judges as Messrs. Owen Thomas, S. T. Wright, J. Jaques, James Hudson, N. F. Barnes, A. Mackellar and others who could be easily mentioned. The point is: Can judges alter the rules of a society to suit an occurrence? The question of double standards in Sweet Peas has no bearing on the principle involved.—HORACE J. WRIGHT.

—Mr. Jenkins, in his letter which appears on page 374, issue July 27, raises a very important point as to the legality of the action of the judges at the National Sweet Pea Society's recent show. As he rightly points out, the judges, in recommending for prizes exhibits that contained double standards, advised the committee to break a rule that was plainly printed in the regulations for exhibitors. That the committee, or at least those members of it who were present, should have consented to such an arrangement is, to say the least of it, astonishing, and, one would imagine, illegal. As one who has taken considerable interest in the Sweet Pea and its society, I must protest against such quixotic proceedings, which are not in keeping with the dignity of a National Society and against all recognised rules of judging.—A. B. ESSEX.

Rose Society for the City of London.—It has been suggested to me by several amateur Rose-growers that a Rose society should be formed exclusively for City people. The primary object would be to hold an annual show in the heart of the City. I am convinced that there is ample room for such a society. There must be a very large number of keen rosarians among our City workers, as indeed a casual examination of "button-holes" during the Rose season amply testifies. They would, I am sure, welcome an exhibition of Roses in their midst, for only a comparatively small number can afford the time to attend the metropolitan exhibition of the National Rose Society or similar shows. The schedule would, naturally, include classes to suit the smaller as well as the large growers, and I think should also have special ones for those dwelling within five and ten miles of the City boundary. Thus exhibitors would be competing against those who have to cultivate their Roses under similar conditions, and this would foster a spirit of keen but friendly rivalry between the various suburbs. I shall be very pleased to receive names and City addresses of those who would be willing to join in the formation of such a society, from which a committee could be formed to carry out the working details.—A. ERNEST PROTHEROE, 67 and 68, *Cheapside, E.C.*

The French Honeysuckle after Flowering.—This handsome shrubby plant is flowering with its wonted freedom with me this season, and the question arises whether it is preferable to cut it well back after flowering, or simply to trim the branches so as to keep the bush in the desired form. Each method has its advantages, and the former would appeal to those who want a compact bush, the latter suiting those who wish to have a tall and more loosely-disposed shrub. Its nominal height is stated as from 2 feet to 5 feet, and it can be had at either, according to the practice of pruning adopted. In any case it is a handsome plant with its racemes of from eight to ten flowers of a nice vermilion pink in the axils of the leaves. With me it is remarkably slow of showing growth each season, and to those who have not seen it before it looks as if it were dead until June, when it begins to show its foliage in a half-shaded place, which suits it well here and in dry soil.—S. ARNOTT, *Dumfries*.

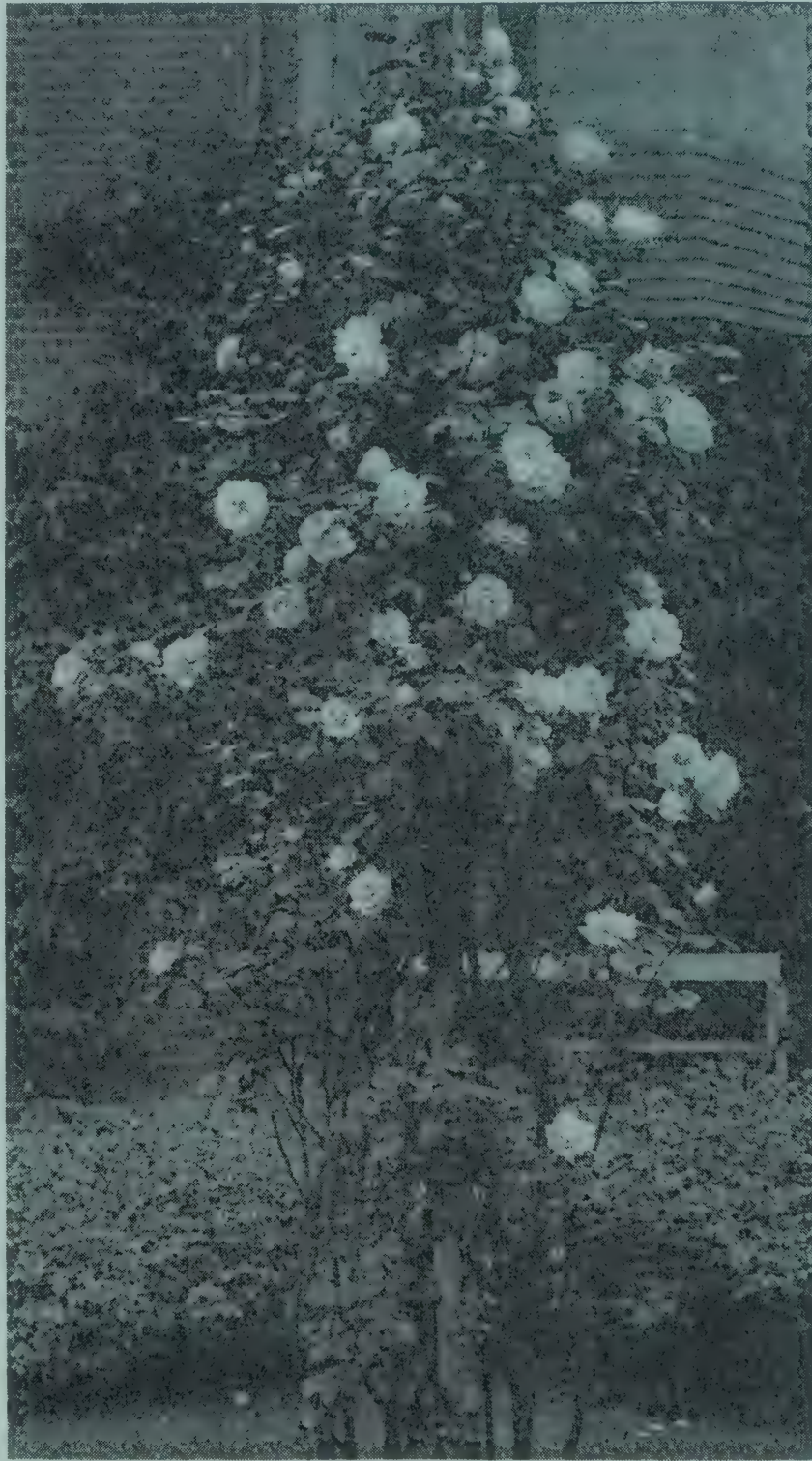
Rose Conrad F. Meyer in a London Garden.—Looking up a note about this Rose, I find it was photographed on May 23, the earliest date, by the way, it has ever been so well advanced. The waiting of another couple of days would have given a better picture, I afterwards found, but the weather looked threatening, and so we made sure of what is now seen. The plant is about ten feet high, healthy and vigorous. Two years ago, thinking it was making too much top growth, we root-pruned it, an operation which has, apparently, justified itself. A most peculiar procedure has taken place this month with one of the strongest shoots. After growing strongly for some five feet, a growth has developed an unusual flower-head, consisting of twenty-five healthy buds, below this again being another shoot about a foot in length, which will go on and complete the ordinary length of growth. We have two other specimens of this Rose between 5 feet and 6 feet high, which I struck from cuttings three or four years ago. They flower well, but the blooms are not so abundant or so large as from the pillar plant. This, however may be a matter of age. The praises given by "An Essex Reader" to this Rose are well deserved, and I, too, should judge it to be a good hedge plant. The experience of Mr. Peel Sheldon concerning this Rose is rather perplexing, particularly as he mentions his result has been identical in two different counties. Nothing being said to the contrary in his note, I wondered, as a reader, whether he transferred the plants from Hampshire to Kent. If so, it is plain his plants are, for some past reason of treatment or selection of quality of plant, liable to develop the black spot on the leaves, and the best thing to do is to destroy the plants. On the other hand, if Mr. Sheldon's plants are fresh ones, and not those from his other garden, may I suggest his communicating with the nearest Rose nursery or private grower of some repute and making a few comparisons as to soil, treatment and the appearance

of their specimens of this Rose with his own. I think this plan might throw some light on the subject, and the result would be of interest and value to all Rose note readers of THE GARDEN.—C. TURNER, *Ken View Garden, Highgate*.

FORTHCOMING EVENTS.

August 5.—Bletchley Flower Show. Machen Flower Show. Ashby-de-la-Zouch Flower Show. Atherstone Flower Show.

August 6.—Barry Flower Show. Artindale's Sweet Pea Show, at Sheffield. Leicester (Abbey



ROSE CONRAD F. MEYER IN A LONDON GARDEN.

Park) Flower Show (two days). Scottish Horticultural Association's Meeting.

August 7.—Bridgend Flower Show. St. Fagan's Flower Show. Astwood Flower Show.

August 8.—Harrogate Flower Show (two days). Madresfield Flower Show.

August 9.—Shilton Flower Show. Kirkcudbright Show. National Carnation and Picotee Society's Show at Manchester. Aberdeen and Northern Counties Sweet Pea Show (two days).

August 10.—Nelson Flower Show. Stirling Horticultural Association.

THE GREENHOUSE.

THE CULTIVATION OF THE PERSIAN CYCLAMEN.

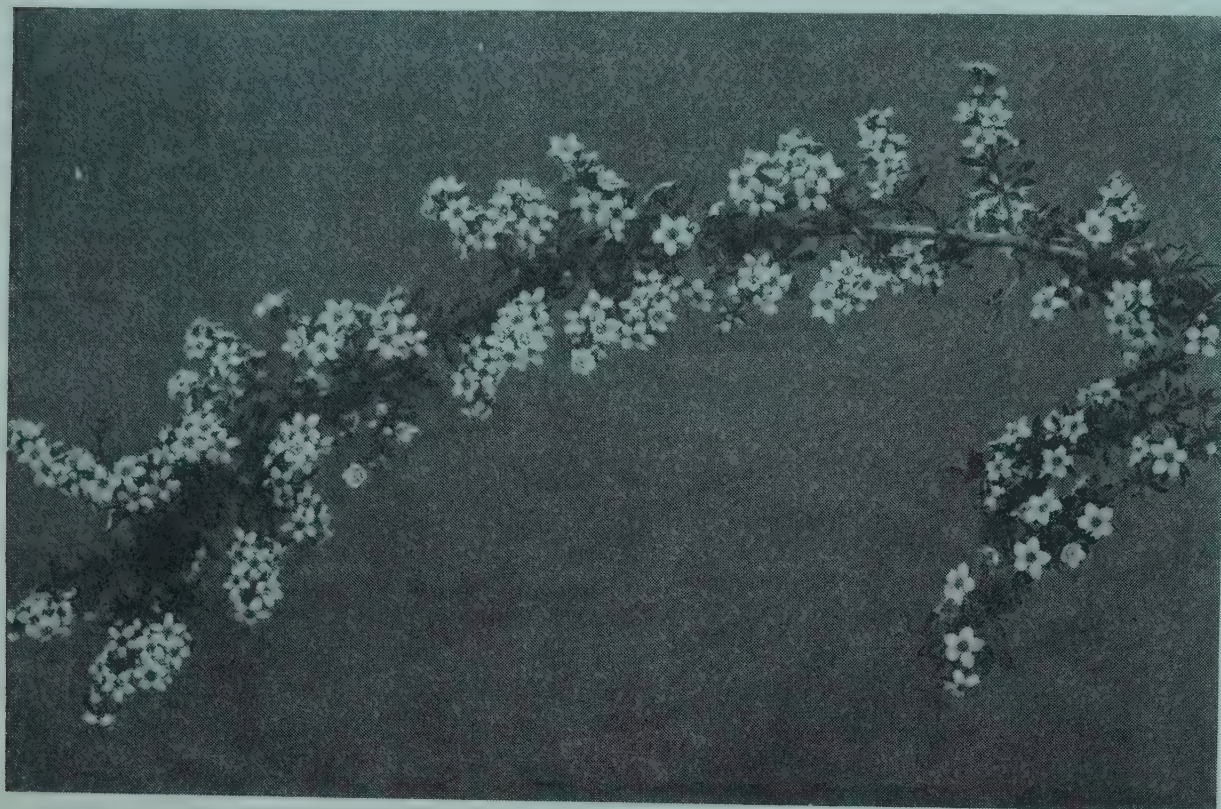
FEW plants give the average cultivator more trouble, and few better repay good and proper treatment, than this. In only a very few gardens do we come across really fine batches of this plant. That it is not one of easy culture I must frankly admit; and having in the past had my full share of disappointments with it, I can fully sympathise with those who have hitherto failed to grow it to perfection. When badly grown, few plants give a more depressing appearance to a house or frame, while really fine specimens are among our grandest floral gems. I have grown these plants for over twenty years, and, until seven or eight years ago, with very indifferent success. Some years they were excellent, but more often miserable failures. Now, however, I invariably have a fine display each winter and spring, so a few details of my methods of culture may be of interest to some of the readers of THE GARDEN who, like myself, may be fond of this beautiful plant. As I consider that young plants are in every way more satisfactory than old bulbs, I propose to confine my remarks chiefly to the culture from the seed-sowing until the plants bloom the first time.

Sowing the Seeds.—I have sown at various times from August till January, and find that the best time is about the middle of the first-named month. Up till the middle of September will do; but if later than that, the plants will not, in my opinion, be so fine and floriferous as the early-sown ones. Select moderately deep pans 9 inches in diameter, and crock carefully and well. Over the crocks place some of the riddlings from the soil. The most suitable compost is made by mixing equal parts of the best loam and brown flaky peat, with a small quantity of leaf-mould and sufficient sharp sand to ensure the whole being kept nice and open. A few pieces of bruised charcoal may be added, if desired, as these help greatly to keep the soil sweet. Mix thoroughly and pass through a half-inch riddle. Scatter the seeds evenly and thinly, and cover with about a quarter of an inch of the soil passed through a quarter-inch riddle. Press gently, and then water with tepid water through a very fine rose. An intermediate temperature—60° to 65°—is very suitable during the autumn

and winter. The pans should be covered with a sheet of glass and a piece of thick paper. As soon as growth shows, remove the paper and slightly tilt the glass. In due time the glass can be removed and the pans set on a shelf close to the glass. Shade from bright sunshine until November, and see that the soil is never allowed to become dry. At the same time, overwatering must be strictly guarded against. An occasional vaporising with XL All will keep the little plants clear of green fly, and, what is more to be dreaded, the Begonia mite, which very often attacks the Cyclamen.

Pricking Off the Seedlings.—Towards the end of January the little plants will be in the best of condition for pricking off into 2-inch pots. The same compost is suitable, with the addition of a sprinkling of Ichthemic Guano. One crock in the bottom and three or four small pieces of charcoal will afford perfect drainage. Pot very lightly, and on no account bury the little bulbs. Place the pots in ordinary cutting-boxes, in the bottoms of which spread half an inch of Cocoanut fibre or even leaf-mould. Give a good watering with tepid water to settle the soil, and then twice daily sprinkle overhead with clean tepid water from a very fine-rosed can. Vaporise as necessary to keep

from an old building, a 6-inch potful of bone-meal to each barrow-load of soil, and about half that quantity or a little more of Thomson's Plant Manure. Use the loam and peat in a fairly rough state, but pass the others through a half-inch riddle. Mix thoroughly, and use dry rather than wet. Make the soil only very moderately firm, and, as before, keep the crowns well up out of the soil. Give a good watering to settle the soil, and return to the greenhouse or pit, shading well from the sun and continuing the sprinkling overhead twice a day until October, when this should be gradually discontinued. I prefer to always grow the plants in a greenhouse or pit in preference



SPRAY OF A HARDY ESCALLONIA, *E. PHILIPPIANA*, A USEFUL SHRUB FOR SEASIDE GARDENS.

down insect pests; but these will not be troublesome if a nice genial atmosphere be kept up. In due time the little pots will become well filled with roots, and it is desirable to give them a shift before they are actually pot-bound. While very good results are had by shifting directly into the flowering pots, I prefer to give them an intermediate shift.

The Second Potting.—Much the same compost is suitable for this, but it should be used in a rougher state. It is also beneficial to add a 5-inch potful of finely-ground bones to each barrow-load of compost, and a small quantity of dried horse or cow manure. Continue to pot loosely, and always keep the corms half out of the soil. Still sprinkle overhead twice a day, and shade from all direct sunshine. Three-inch and 4-inch pots are suitable for the second potting.

Final Potting.—This must be attended to before the plants get root-bound, or a check will be given that not infrequently causes premature blooming and consequent loss of vigour. For the strongest plants 6-inch pots should be provided, with the 5½-inch size for the moderate ones and the 5-inch for the weak growers. Crock with extreme care, and add some pieces of charcoal and half-inch bones above the crocks. The compost should consist of three parts best fibrous loam, two parts brown fibrous peat, one part sweet leaf-mould, one part coarse sand, a quarter of a part mortar rubbish

to a cold frame, as I find they are much less trouble.

Subsequent Treatment.—After the pots get fairly well filled with roots, gentle feeding must be systematically given. Clear liquid made from cow-manure and soot is excellent, but Ichthemic Guano is even better, used at the rate of a heaped tablespoonful to a gallon of rain-water and given twice a week. Both the above liquids may be given, but on alternate fortnights. After the flowers begin to open, an ordinary airy greenhouse suits them best, as the flowers will not only last longer, but the colours will be much more brilliant than if grown in a higher temperature. During the summer abundance of air must be given, and, indeed, at all times a close, stagnant atmosphere must be avoided. Strong heat at any time is disastrous. The chief enemies to the Cyclamen are green fly and the Begonia mite. Fortunately, good cultivation and an occasional vaporising with XL All will keep these pests at bay; but the Begonia mite is a most insidious foe, it can only be kept down in its early stages by constant fumigation. A good strain of seed should always be procured, as really fine varieties are just as easy to cultivate as the poor weedy things sometimes met with. Personally, I much prefer Sutton's Prize and Sutton's Giant strains.

Preston House, Linlithgow.

C. BLAIR.

TREES AND SHRUBS.

A BEAUTIFUL HARDY SHRUB.

(*ESCALLONIA PHILIPPIANA*.)

THIS is the hardiest of all the Escallonias, growing in the open in the London district, for, as is well known, most of them require the shelter of a wall or belt of shrubs, except in the South and West. It is a native of Valdivia, and is one of Richard Pearce's introductions of the early seventies. *E. philippiana* forms a spreading bush some 5 feet in height. It is deciduous; with small rich green leaves. The shoots in late June and July are clothed with masses of starry white blossoms, with a fragrance suggestive of Hawthorn. Cuttings form a ready means of increasing Escallonias under glass from July to September. They thrive in a rich, well-drained, loamy soil.

The Escallonias are well-known seaside shrubs, being frequently represented as large bushes in shrubberies, or even as hedge plants in Devon, Cornwall and similar localities. The subject of this note is also interesting as being the seed-bearing parent of the valuable hybrid *Escallonia langleyensis*, the male parent being *E. macrantha*. This hybrid comes next in point of hardiness to *E. philippiana*, the unripe tips of the shoots suffering a little during severe winters. *E. langleyensis* has rich dark green leaves and rose red flowers produced in profusion during June, with a more or less continuous supply until autumn.

WEeping TREES FOR HOT WEATHER.

THERE are many trees with weeping or pendulous branches which might well be given prominent positions on lawns, especially when the lawns are used for afternoon teas, for on a hot summer's day the shade of a large Weeping Elm or Ash is very acceptable. A shady tree in the vicinity of a tennis or croquet lawn is also a valuable asset, for spectators may then enjoy watching a game without being subjected to the full glare of the sun, a very necessary consideration when people of delicate constitution are concerned. Apart from this, pendulous-habited trees are a necessity in a large garden from a landscape point of view, particularly in the vicinity of water, for they tend to relieve the monotony of trees of more rigid outline. Some consideration must be given, however, to the selection of the kinds of weeping trees, for all are not suitable for the same purpose.

As a whole, weeping trees may be divided into three groups, according to habit. One group is made up of trees on which every branch is pendulous, the whole branch system assuming more or less the outline of an open umbrella. Another group is composed of trees with an upright leader and moderately straight main branches with the secondary branchlets pendulous; while the third set consists of trees with a curiously-contorted habit of growth, in which the main shoots bend over almost at right angles, and yet the trees continue to increase in height without any attention on the part of the cultivator. As a rule, in such a case all side branches are long and pendulous.

When shade is the first consideration, the umbrella-shaped tree is the best one to plant, for the branches develop in a uniform manner and shade is provided all round. It is difficult to get some kinds of trees to the desired height without

aid. If, however, a central branch is staked upright, a new set of branches may be gradually formed. To prevent the branches of this class of tree becoming too dense, it is necessary to thin them out occasionally, while the effect of the tree is increased if the branches are kept free of the ground. Weeping trees of this class must have plenty of room to be seen to advantage, and it is a great mistake to plant them in very small gardens where they can never have a chance of developing properly. In this particular section two of the most vigorous examples are the Weeping Ash (*Fraxinus pendula*) and the Weeping Wych Elm (*Ulmus montana pendula*). The Weeping Holly (*Ilex Aquifolium pendula*), the Weeping Thorn (*Cratægus monogyna pendula*) and the Weeping Beech (*Fagus sylvatica pendula*) are also good. There are others, such as the Weeping Cherry and the Weeping Sophora, but they are less useful for general purposes.

For landscape effect the second group provides the best examples, for in this case the various trees attain a height approaching that of their respective types, while their varied habits are extremely graceful. To this group Young's Weeping Birch (*Betula alba pendula Youngii*), one of the most graceful of all weeping trees, belongs. Scarcely less elegant in outline is the ordinary Weeping Birch, which is frequently found wild in native woodlands, and sometimes comes true from seeds. The various Weeping Willows may also be included in this group, more especially *Salix babylonica*, *S. b. Salamonii*, *S. alba vitellina pendula* and *S. elegantissima*. The weeping kind of *Salix purpurea* forms a comparatively low tree or large bush, and although its wand-like branches are light and graceful, the general outline of the plant is less pleasing than the previously-mentioned kinds. There is also a weeping form of the Goat Willow (*S. caprea*), but it is hardly worth considering when making a selection. A Weeping Ash of this type is noticed in *Fraxinus Excelsior Wentworthii*, and a Beech in *Fagus sylvatica bornyensis*. *Ulmus glabra pendula* and *U. campestris microphylla pendula* are instances of decorative Elms with weeping secondary branches, while one form of *U. montana* has a similar habit. A singularly beautiful conifer with weeping branches is *Picea Morinda*, while *Cupressus nootkatensis pendula* and the various Larches are also of graceful outline.

The third group is typified by a Weeping Beech, which often assumes a commanding appearance. It is known by the varietal name of *miltonensis*. Another tree of similar outline is the weeping form of the White Mulberry (*Morus alba pendula*). In this case it is necessary to stake a leading shoot upright in order to get height into the tree.

It must not be assumed, however, that all weeping-habited trees are an acquisition to the garden, for such is not the case. Some have the appearance of monstrosities, and it would have been a good plan to have burnt them rather than have given them distinctive names and distributed them broadcast. Several pendulous forms of the common Spruce may be obtained, not one of which can be called ornamental. The same may be

said of the Weeping Apple, the Weeping Hemlock Spruce, one or two Weeping Plums and Cherries, although *Prunus pendula*, a good species, is really ornamental. In a few words, a really good weeping tree is a pleasure to look upon and a worthy occupant of the garden, but an inferior example is an eyesore and not worth the ground it stands upon; therefore select only the best kinds, and treat them to a liberal amount of good soil at planting-time in order to get all that is possible out of them.

D.

THE FLOWER GARDEN.

SIDALCEA CANDIDA.

A NATIVE of New Mexico, *Sidalcea candida* is a hardy, handsome, herbaceous perennial, growing from 2 feet to 4 feet high and bearing terminal racemes of large pure white flowers. It is a very useful and ornamental plant for the herbaceous border, the wild garden or the shrubbery. At all times it should be planted in large masses; it then makes a very bold and attractive display. Even a bed of it in some secluded spot, providing



SIDALCEA CANDIDA, A USEFUL HARDY PLANT FOR BORDER OR WILD GARDEN.

it is not too shady, produces a very fine effect when in bloom.

Another species worthy of notice is *S. malvæflora*, from North-Western America, with lovely lilac flowers, which are not quite so large as *S. candida*. *S. Listeri*, of garden origin, has pretty pink flowers; this is considered by some authorities as a variety of *S. malvæflora*, but the flowers are not only of a different shade, but are larger and fringed, although that alone is not sufficient to make it a distinct species. They will all succeed in full sun or partial shade in any ordinary garden soil, and are easily propagated by seed or division of the roots, both of which should be carried out in the spring.

F. G. P.

SWEET PEA NOTES.

The "National" Show.—It does not come within my province to give a report upon this magnificent gathering, but I feel that some slight reference is permissible in addition to the exhaustive details that have already appeared in the columns of THE GARDEN. In my last notes I deplored the fact that it had been decided to place baize-covered barriers down the middle of each table. I now most whole-heartedly condemn what was done. It was impossible to get a view of the charming general effect from any point of vantage save the gallery, and it is not possible to allow all and sundry to mount there to see the beauty of the show. Standing in the body of the hall or upon the steps of either annexe, one could see a single table and no more; whereas before these ugly boards were utilised one could see the length and breadth of the entire exhibition. The step is a retrograde one, and I hope that it will not be persisted in another season. If it is, I would suggest that each exhibit shall be penned off as is done at dog and poultry shows, since this is the only logical end of the matter. The object was to prevent the bunches on one side of the table clashing with and minimising the effect of those on the other side. But the serious clashing occurs when the bunches are side by side,

and the divisions ought, therefore, to come between them!

The Disqualifications.—I feared that double standards would prove to be somewhat of a curse to the judges, and such proved to be the case; but I was immensely relieved to find that my fear that Mr. Curtis would be promptly removed from this vale of tears was unfounded. When I reached the hall the secretary was alive and well, but suffering from an attack of depression which naturally followed the trouble into which he had been inadvertently driven. I had been judging Sweet Peas, equally as fine as the majority of those at the "National," at Wolverhampton with Mr. Fife of Dobbie's, and we were exceedingly careful

never to mention the words "double standards" — we had plenty of hard work to do without bothering about them. Many people will, perhaps, consider that the decision to disqualify any exhibit in which stems with double standard flowers are present is correct; but, personally, I am not of that opinion, and trust that the rule will have been rescinded before the next show comes along.

The Judges' Decisions.—In further relation to the rule that double standards should disqualify, I was greatly interested in the decisions arrived at by some of the judges. Going round the show, I found that in several instances the judges had decided that, as all the exhibits in a particular class contained flowers with double standards, they would judge the flowers on their merits. I maintain that they had no power to do anything of the sort. The exhibits contravened the rules of the society as printed and published, and

in this particular question, but it is impossible for me to overlook and fail to protest against the creation of a precedent which would, if persisted in, give the judges power to alter any rule in any schedule that might not meet with their personal approbation. The position is an impossible one.

HORACE J. WRIGHT.

FLOWERS IN AN OLD-FASHIONED GARDEN.

AMONG the many gardens scattered so freely throughout the Southern Counties of England, none are more pleasing than those attached to old-fashioned country houses, providing they have been allowed to retain their original features of simplicity and colour. Unfortunately, in many instances the owners or tenants of such houses are incapable of appreciating the quaint charms of such gardens, and instead of finding Box-edged

by Mrs. Sheaf, a lady who has for some years taken a very keen interest in the garden, and who has done much to retain its old-world character. On the June day when we were fortunate enough to visit this garden the air was filled with the scent of Madonna Lilies, Honeysuckle, Stocks and Box edging, all the paths having a bountiful margin of this old-fashioned shrub. The accompanying illustrations will give some idea of the character of the garden. The weathered red-brick retaining wall, with its venturesome Ivy, Sedums and other plants, seen in the first illustration, skirts the lawn, and the border above, as well as the one below, is filled, quite informally, with Roses, Madonna Lilies, Phloxes, Evening Primroses, Pinks, Japanese Windflowers, Stocks and similar plants. The second illustration represents a border lower down the garden, going towards the river that girts it at the bottom, filled with Chrysanthemum maximum, Cornflowers and Poppies, a simple yet beautiful combination that is quite in keeping with the surroundings. In the distance, and not visible in the illustration, are some ancient Filbert trees, planted doubtless by some village squire, and at the time of our visit these relics of bygone days were carrying the heaviest crop of Nuts we have ever seen. The peaceful aspect presented by the whole garden provides a delightful retreat from the bustle of modern life, and it will be a bad day for our country when such old-world gardens as this cease to exist.

WORK AMONG THE CHRYSANTHEMUMS.

THE work among the plants during this month is about the most important and interesting of any done throughout the season. It is important, because the majority of the precious buds must be secured, and interesting on account of the fact that the buds are the ones to develop into the magnificent blooms that cultivators strive to produce from December to the following November. Of course, experienced cultivators know all about bud "taking," but the beginner does not and is wishful to learn, so the following hints will be helpful to all such.

About Buds.—There are first-crown buds. These generally appear very early in August, and continue to do so, according to the variety, until the end of the month where the incurved section is included. The second-crown buds are those resulting from the due stopping of the plants in March and April in the first instance, and they mostly appear about the middle of August, and continue to do so until September 5 or thereabout. The terminal buds are those which appear later than any others, and the fully-developed flowers from such are generally only fit for exhibition in the case of a few varieties of the incurved section, but many of the single-flowered are good from such buds.

The Right Buds to Take.—"Taking" really means retaining. It is a term generally used among the cultivators of this plant, but "securing" or "retaining" would, either of them, be better words to use. However, the word "take" means



BRICK RETAINING WALL AND FLOWER-FILLED BORDERS IN AN OLD-FASHIONED GARDEN.

therefore they should have been instantly disqualified. I have been judging flowers, fruits and vegetables in all parts of the country for many years, and have always thought that the rules which governed the exhibitors also governed the judges. If this view is not correct, where on earth should we come to? To permit a judge or set of judges to alter the published rules is ridiculous, and would lead inevitably to endless confusion and dissatisfaction. And rightly so. Any prizes that were awarded at the "National" under the decision mentioned were illegal. Had the judges disqualified all the exhibits in a class, and then judged the flowers on their merits with a view to awarding special prizes, all would have been correct, provided, of course, that the committee had sanctioned it; but completely to ignore a rule was wrong, from whatever point of view one may regard it. I wish it to be clearly understood that all my sympathies are with the exhibitors

borders filled with flowers suitable for their surroundings, one too often encounters gaudy, formal patches of such kinds as bedding Geraniums and Calceolarias, excellent plants in their proper places, but totally unfitted for old-world surroundings. Thus, when we do find an old garden the owner of which has correctly hit the keynote of simplicity of arrangement and colour, it is all the more pleasing, and worthy of placing on record.

One such is the garden whence the illustrations (pages 390 and 391) were taken. This and the delightful old house known as The Park are situated at Stebbing, a typical Essex village some three miles north of the quaint little town of Dunmow, and skirting the Roman road that runs from Ware in Hertfordshire to Colchester in Essex. The history of the house does not now concern us, but that it occupies the site of a very ancient residence, the mount, with its surrounding moat that adjoins the garden, testifies. At present it is occupied

to retain a certain bud, and to remove all others or shoots surrounding them. In the case of all late varieties, such, for instance, as the Hon. Mrs. Lopes or Mrs. Gilbert Drabble, first-crown buds must be taken. If such buds appear very late in July, retain them, removing the side shoots near them one by one until all are removed. The work of "taking" may be spread over ten days. It is better to do this than to remove all unwanted buds or side shoots in one day; then the bud retained will receive no check, but continue to grow steadily and sturdily, and this is what we want. If the buds of very late-flowering varieties are taken about August 7, the resultant flowers will be practically perfect. Medium early varieties will show their buds from August 10 to August 25. If taken any time between those dates, the resultant flowers should develop just right. Very early-flowering varieties and the majority of the incurved section, as well as the single-flowered, should show their buds during the last week in August and the first week in September.

How to "Take" the Buds.—

The cultivator must watch the points of the shoots carefully every day and every evening, so as to destroy earwigs found there and to be ready to pinch out the young side shoots when the latter are about half an inch long, or just long enough to be quite free from the flower-bud. The latter must not be damaged in any way by the removal of the side shoots, and, as previously stated, the pinching out of these small shoots must be done gradually, one or two each day, until only the bud is left, the main stem and the main leaves on it. During the time the buds are being taken the plants should only receive clear water or occasional doses of very weak liquid manure. Directly the buds begin to swell freely, feeding may be resumed and a good top-dressing of rich compost put on. AVON.

COLOURED PLATE.

PLATE 1452.

THE HOODED GLADIOLI.

THE coloured plate presented with this issue represents hybrid flowers of a particularly interesting character, viz., *Gladiolus primulinus*

crossed with varieties of *G. gandavensis* and *G. Childsii*. The hybridising of *Gladiolus primulinus* with other forms was taken in hand in this country and in America shortly after the species came into cultivation. It proved very productive as a parent, and, crossed with forms of *gandavensis* and *Childsii*, has produced a race midway in size and stature between the two parents, and the yellow colour of the type crossed with the stronger reds and pinks of the *gandavensis* has produced a number of intermediate soft shades of rosy apricot, pink, salmon and similar colours,

which are making the most delightful combinations. The hooded nature of *primulinus* is reproduced in varying degrees in the hybrids, which makes them most fascinating, both as plants in the border and especially for table decoration. They are all of easy culture, and Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, who kindly supplied the flowers from which the coloured plate was prepared, inform us that they have found them do well planted by the side of water, and also mention that evidently the liking for such conditions comes from the fact that *primulinus* is found growing in wet situations. The point



A SIMPLE BORDER OF CHRYSANTHEMUMS, CORNFLOWERS AND POPPIES.

worthy of notice is the fact that the majority of seedlings are all good and worth keeping, whereas in a general way seedlings of *gandavensis* do not produce all first-class flowers. Dr. Van Fleet, a well-known American authority on *Gladiolus*, has been working with these hybrids for some years, and has evolved a race which is superior in many respects to those previously introduced. *Gladiolus primulinus* is a native of Central and South Africa, the peculiar hood of the flower is said to be some protection against excessive moisture in the atmosphere.

THE ROCK AND WATER GARDEN.

YELLOW-FLOWERING CAMPANULAS.

THE colour of the *Campanulas* is generally more or less bluish lilac or white. The yellow-flowering ones are rare. In the chalk mountains of Central and South Europe one finds the *Monocarpian* (not bi-annual, as it is often said) *C. thyrsoidea*, which bears in May and June a dense thyrse of greenish yellow flowers, very fragrant. This is in common rock gardens; but two other species are seldom seen, which are yellow-flowering, too—I mean *C. petraea* and *C. velutina*. The first I found once in the neighbourhood of Puget-Thenicus in the South of France. I had it many years ago in a wall, but could only once see its flowers. So I wished to see it in the wild state to note how it grows and to know how it must be raised. The plant was given as growing in the Escales d'Aiglun, in a very disagreeable slope of stones, where the sun shines with the deepest intensity. So we started at once, one of my sons, who was then living at Puget-Thenicus, and I, in his lightest carriage, for the Escales d'Aiglun. But judge of my joy when I saw, just at the summit of the pass leading to the Valley d'Aiglun, in perpendicular and titanic walls close to the road, near a tunnel called Passe de Biolan, my yellow *Campanula* growing like weeds! It was not in flower, but no doubt that was it. It grew there in half-shady places in the leaf-mould accumulated by the centuries, in the crevices of the steep rocks, and was very flourishing. That plant has small yellow flowers, densely close together in short spikes, which flowers from August to October, and seldom ripens its seeds with us. Last year, of course, we got good and abundant seeds of it! The third yellow-flowering *Campanula* I have to speak of is *C. velutina* (lanata), which grows in the Balkans and in Asia Minor, and is often identified with *C. lanata*. Velenowsky, in his *Flora of Bulgaria* (page 365), does not hesitate to separate the two kinds, saying that while *lanata* is a bi-annual and has five stigmata with a five-celled capsule, *C. velutina* is perennial, with three stigmata and a three-celled capsule. Then, in *lanata* the corolla is blue, but in *velutina* it is yellow. *C. velutina* grows very easily here in the crevices of my wall, in a sunny position, and sows itself between the rocks. It flowers in summer (July to October) in a pyramidal branch of yellow, rather big flowers, exceedingly picturesque to see. *Campanula mollis* of Spain, which is very near to the last, I do not know, and is, I fear, very rare in gardens. Floraire, near Geneva. H. CORREVON.

THE PAVED GARDEN.

THESE is at present a growing feeling among gardeners that the reaction against formality in gardening has reached its limit, and that it is time the pendulum began to swing back in the opposite direction. People are beginning to realise that gardening comprises something more than a servile imitation of Nature; that the artistic criterion of a garden is something higher than its naturalness. The mistake, which is still too often made, is the failure to realise the architectural character of such garden appendages as pergolas, trellises, arbours and summer-houses. With a growing appreciation of the fact that such things demand as careful planning as the dwelling-house itself there is arising a class of specialists whom one may

the undisturbed restfulness of long years, which should be an attribute of the paved garden.

If any plants at all be admitted upon the actual paving, the very greatest care should be exercised in their selection and insertion. It cannot too often be insisted upon that paving is primarily intended for the feet of man, and any plants allowed to grow upon the space devoted to that purpose must not only wear the semblance of having made a bold bid for freedom and escaped thither from the neighbouring borders, but they must in themselves be strictly in harmony with their surroundings. The indiscriminate planting of a variety of rock plants is most strongly to be condemned. To an artistic mind the result of such planting is as repellent as would be the appearance of casual foot-paths across one's choicest Rose-beds. As Rose-beds are intended for Roses, so are walks intended for walking upon, a proposition so elementary that its habitual neglect is little short of astounding.

on to the adjoining pathway. But under no circumstances should these dainty rogues encroach beyond the outer edges of the paved walk. If the latter become so much overgrown that one has to pick one's way between tufts and clumps of plants which one would be loth to injure, then the bounds of moderation have been exceeded.

A solution of the difficulty is to be found in the use of exceedingly dwarf species only, such as the *Veronicas canescens* and *rupestris*, *Arenaria balearica*, *Herniaria glabra*, *Mentha Requienii*, *Thymus Serpyllum albus* and *coccineus*, and possibly also the *Acænas*, such as *inermis* or *pulchella*, or, best of all, *Buchanani*. None of these will resent an occasional trampling. Subject to the restrictions already stated, such dainty small flowers as *Asperula Gussonii* and *hirta*, *Campanula pusilla*, especially the variety named after Miss Willmott, and *pulla*, *Stansfieldii* and *waldsteiniana*; *Erinus alpinus*, *carmineus* and *albus*; *Hutchinsia alpina*, *Saxifraga muscoides atropurpureum* and *Rhei*, *Silene acaulis*, *Sedum farinosum*, *Semprevivum arachnoideum*, and such plants as the dwarf *Dianthus*es, may be allowed upon the outer portions of the paving.

One of the most charming and effective uses of paving is in the Rose garden; but here, great though the temptation may be, the walks should be left free of vegetation, with the exception of moss. One word of warning should be given concerning the size of the stones employed. These should never be less than one foot square, but should preferably be considerably larger. For walks those of rectangular shape are most suitable. For a paved enclosed court, such as the little Tudor garden at Hampton Court Palace, stones of irregular sizes and shapes may be used. An admirable example of a large paved garden associated with tub plants and Lily tanks is to be seen in Kensington Gardens, near Lancaster Gate. Such a garden forms a most appropriate connecting link between the precincts of the house and those of the garden proper. Many alpine will be found to seed freely between the joints of the paving; where there is ample space, a charming effect is produced by a few clumps of seedlings of plants such as *Campanula portenschlagiana*, *garganica* and *G. F. Wilson*; *Cheiranthus Allionii*, *Dianthus deltoideus roseus*, *Erinus alpinus*, *Linaria alpina* and *Papaver alpinum*. But even here the keynote of success is moderation.

RAYMOND E. NEGUS.



A STONE GARDEN STAIRWAY OF BOLD DESIGN.

designate "garden architects." The particular branch of gardening to which we desire now to draw attention falls within the peculiar province of such garden architects, and a paved garden designed by one of that fraternity will be far less likely than would otherwise be the case to display such glaring and rudimentary errors as, for example, the use of so-called "rustic" work in conjunction with paved walks or courts. For one of the cardinal principles to be observed in the design and construction of the paved garden—be it merely a paved walk with or without a pergola, a paved Rose or water garden, or a paved forecourt—is that the only traces of rusticity allowable in such a garden are those due to art and not to accident. It is, for example, not merely permissible but desirable to encourage the mossing over of stone edgings and the interstices of paving, for thereby is obtained that venerable appearance betokening

A cardinal rule to be observed in planting crevices is that all traces of the gardener's hand must be studiously obliterated; accordingly, the most successful results are obtained where the paving is flanked by low retaining walls built of unmortared stones, the chinks between which are filled with suitable alpines, so that any plants allowed to grow upon the paving appear to be favoured intruders in forbidden regions. Where no such retaining wall is present, it is advisable to have a stone edging covered here and there with the most prostrate plants, some of which may be permitted to trespass a short distance upon the walk. The varieties of *Phlox subulata* are peculiarly charming when grown in this way. Again, where the paths or walks are flanked by beds, in which the front portions are occupied by the lower-growing *Campanulas*, *Saxifrages*, or *Sedums*, a stray plant or two of the same variety may be allowed to wander

MANY a garden loses in attractiveness by the careless treatment of the short stairways which lead from one level to another. It is not always realised how much additional charm is given by the well-conceived design of such details, or how great a variety lies open to the straying choice. Steps need to be considered in relation to the retaining walls, in which they often make a break. They should have wide treads and narrow "risers" so that they are easy-going. Too great a regularity in their building is to be avoided. Rough rubble masonry is generally to be preferred to ashlar, where stone and not brick is the material, but the rustic character should not be overdone. Great variety is to be attained by a happy conjunction of straight with curved steps, as in the accompanying illustration, which shows also the value of rough piers to mark the break in the retaining wall. The example is chosen from Island, Steep, Petersfield, where is also the paved Rose parterre which was pictured in THE GARDEN last week.

L. W.

NOTES ON GARDEN DESIGN.

GARDENING FOR BEGINNERS.

PROPAGATING BEDDING PLANTS.

THIS is very interesting work, and one in which amateurs take a great delight. Even the most experienced cultivators suffer some losses in the rooting of cuttings and in very favourable circumstances, so that the beginner must not be disheartened if he loses a few of the precious cuttings. When cuttings are taken in the spring, rather soft wood must be selected; but in the autumn young wood, well firmed, is the best, as very soft, sappy stems would be liable to decay either when first inserted in the soil or when the first dampness of the winter season came. Another guide for the benefit of the inexperienced may be given, namely, that the stems of cuttings which are to be rooted under quite cool conditions must be harder or firmer than those subjected to a gentle heat, especially a bottom-heat such as is provided by hot-beds or hot-water pipes under a propagating-frame.

Composts for Cuttings.—Two heaps of composts should be mixed, one being made up of fibrous loam and leaf-soil in equal proportions, with sufficient coarse sand added to render it very gritty in nature. Such a compost is grand for Zonal Pelargoniums, Petunias, Calceolarias, Gazanias and Marguerites. Another heap must be made up of fibrous loam, one part; leaf-soil, two parts; and sand, one part. In this case the compost will be suitable for Heliotropes, Iresines, Coleuses, Lantanas, Alternantheras, Mesembryanthemums, Ageratums and Fuchsias. As a general rule, at least three large leaves must be left on each cutting besides the small ones at the extreme point, after being duly prepared for insertion. All cuttings must have a heel to them—that is, a very small portion of the older wood attached—or be cut off just below a joint. The reason for this is that a callus forms more quickly and more surely than when the stem is severed between the joints, and consequently there are fewer losses. Cuttings may be inserted in pots, shallow pans, or in boxes about



I.—SECTIONS OF PREPARED POTS, WITH CUTTINGS IN COURSE OF PREPARATION.

four inches deep. Good drainage is essential. Some sand must be laid on the surface of the soil, as it prevents decay, and some sand must be borne down by the cutting-stick for the base of the cutting to rest on, as it conduces to the formation of roots.

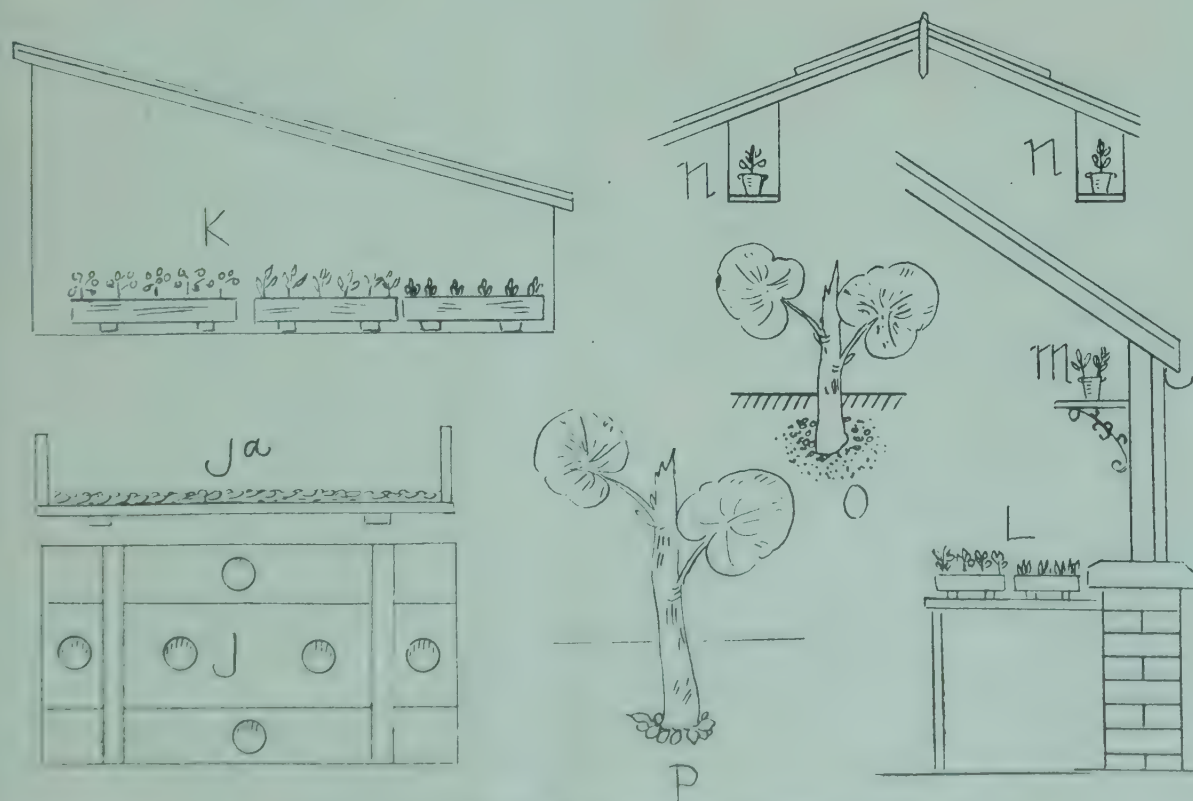
The Best Time to Take Cuttings.—Zonal Pelargoniums, Fuchsias, Gazanias, Heliotropes, Ageratums and Lantanas should be propagated early in August; Mesembryanthemums and plants of a succulent nature generally during the latter part of this month; and other kinds of soft-wooded plants not of a true succulent nature during the early part of September. In their case a slight bottom-heat is advisable. Calceolarias are best

rooted in cold frames. Insert the cuttings at the end of September.

The Sketches Explained.—Fig. 1: The stem of a cutting as shown at A must be severed with a sharp knife just below a joint, and the lower leaf or leaves as shown at B. In the case of most kinds of cuttings, the lower leaves are best cut off; in that of Zonal Pelargoniums they are best when pulled off, and also all scales, as the latter often decay in the soil and cause the loss of the whole cutting. C shows how the crocking of a pot must be done; D, crocks; E, soil in the pot; F, sand on the surface. G shows the right kind of Heliotrope and a similar plant cutting—a basal shoot; H, the cutting prepared for insertion; I, stick to make the holes with. All flowers on cuttings must be removed. Fig. 2: J shows bottom of cutting-box, with holes and strips of wood to keep box off soil; Ja shows section of box prepared for the compost; K, cuttings in boxes in a frame; L, boxes on stage in a greenhouse; M, pots on side shelves; N N, pots on suspended shelves in a span-roofed house; O, sand round the base of a cutting; P, the callus formed prior to growth of roots. Water all cuttings when first inserted, then only when water is actually required. G. G.

HYDRANGEAS FROM CUTTINGS.

The common Hydrangea is justly admired for its large, showy heads of blossoms, and at this period, when many of them are at their best, one's thoughts naturally turn to their propagation. What is more, this is just the time to increase them by means of cuttings, which are not at all difficult to root, and the plants so obtained will, in many cases at least, flower next year. The best cuttings are furnished by the strongest unflowered shoots, such, in fact, as could be depended on to bloom next season if left on the plant. A length of 4 inches to 5 inches is very suitable for the cuttings, which should be cut off with a sharp knife just below a joint and have the bottom pair of leaves removed. H. P.



2.—HOW TO TREAT THE CUTTINGS AFTER PLANTING.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Dahlias.—Give copious supplies of moisture at the roots. Earwigs are, especially in some localities, most troublesome, and should be trapped. The best method I know is to cut up some Broad Bean haulm, after it has been well ripened, into lengths of about six inches and tie these on to the stake, leaving a long piece of raffia so that the stem can be lodged in the foliage. Blow them out each morning into a bottle of water. Flowers intended for exhibition must be disbudded and sheltered from scorching sun and rains.

Anemones.—These are among the most gorgeous of our border plants, and continue to flower over a long period. Though some gardens and soils suit them better than others, a trial may well be afforded, especially of the St. Brigid strain, which contain in the mixed varieties, literally speaking, all the colours of the rainbow. Select a piece of ground that is partially shaded, such as a strip in front of a trellis for hardy fruit, and draw a drill. Mix the seed with silver sand and sow thinly and evenly. Make the bed firm.

The Rock Garden.

Dianthus.—The various species on the rock garden may be increased by cuttings after the flowering period is over and as soon as the growths attain sufficient size. Hand-lights under a north wall or other shady position, and with a depth of 3 inches of sandy soil passed through a fine sieve, will suit the purpose. If the cuttings receive a good watering after insertion, occasional dampings overhead according to the weather will suffice until rooted. *Dianthus Napoleon III.* is a magnificent variety. The rich scarlet double flowers are freely produced, and have shown to great advantage near to a clump of *Thymus Serpyllum albus*.

Seed-pods.—Unless these are wanted to ripen for seed-sowing at a later date, they should be removed immediately the flowers are past, as, with the choicer plants especially, much of their vitality is absorbed, and the plants also present a much neater appearance.

Plants Under Glass.

Oleanders.—Where space permits for these to make bushy specimens, they rank among our most handsome greenhouse shrubs, and are at the time of writing making a grand display. There are several varietal hybrids of varying shades of colour. A plentiful supply of water will be needed when the plants become pot-bound, and liquid manure should be also afforded. When the flowers are past, the growths should be shortened back.

Winter-flowering Begonias.—Pot on the plants as becomes necessary, and attend to the staking and tying. Keep the surroundings moist to encourage a clean growth, and shade from bright sun. Plants of the Gloire de Lorraine type especially should have the flower-buds pinched out as soon as large enough.

Freeseias.—Where the corms were saved from last year, they may now be shaken out of the old soil and graded according to their size ready for potting up shortly. No delay in sending the order early for these and the earliest-forced bulbs should be allowed, so that potting or boxing may be proceeded with and the receptacles may become well filled with roots.

The Hardy Fruit Garden.

Protection of Fruit.—At the time of writing many nests of wasps have been already destroyed. Choice fruits of Apples and Pears that are specially wanted without blemish should be protected with muslin bags. Where possible, much harm may be averted by covering the fruits with hexagonal netting, as we find that the birds commence by pecking the fruits and the wasps follow their mischief. Various traps should be hung near to the fruit, and bottles half filled with almost any kind of syrup will account for many, but to carefully hunt for nests and destroy them is the best means of eradication.

Early Apples.—Many of the early Apples may have their season increased by picking the most forward fruits carefully and placing them in boxes on a layer of wood-wool, storing in a warm cupboard and examining at intervals; or, better still,

they may be put on the hot-water pipes in a fairly dry house. As soon as sufficiently ripe, a dish may be selected in advance of those out of doors. This will detract but little from their flavour.

The Kitchen Garden.

Lettuce.—Make a good sowing now of Lettuce in drills in a sheltered part of the garden for late autumn and early winter supplies. A successional sowing or two made during the month will probably be found extremely useful for maintaining the supply. When the plants are large enough for thinning, the young ones that are removed may be transferred to positions where they will be less likely to suffer from early frosts.

Early Crops of Potatoes as soon as ready should be lifted, as nothing is gained by allowing them to remain in the ground, and, as I think I have already mentioned, no harm will result if the skins of the tubers do rub a little.

Seakale.—Keep this crop free from weeds by the frequent use of the hoe, and thin out the weak growths, also remove any flowering stems.

Brussels Sprouts.—Where time permits, the plants of these will benefit by having stout stakes placed to them, and any of the lower leaves that are decayed should be removed.

Fruits Under Glass.

Late Grapes.—Encourage the crop to swell freely by the application of stimulants to the borders. Look over the bunches carefully, and, if the berries are too crowded, cut out one or two where necessary, taking great care not to stab any of the others with the scissors. Ventilation must be carefully attended to. On hot days it is almost impossible to give too much air, and frequent dampings, leaving a good circulation on at night, will dispel condensed moisture and avoid much splitting of the berries. In the week ending July 20 we had a sudden change, when much less ventilation was needed and a slight circulation of heat in the pipes during the day as well as at night was welcomed.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Spiræa Ulmaria.—This is one of the few handsome plants from which it would be a mistake to remove the old flower-spikes. After flowering they remain a nice brown colour for the remainder of the season, and are by no means only slightly decorative.

Climbing Roses.—Quite a number of these, e.g., *Dorothy Perkins* and its varieties, *Hiawatha*, *Crimson Rambler* and others, produce shoots from the base of the flower-trusses, which should all be removed. When left, they partially hide the bloom and are otherwise of no value. Continue to tie in the current year's shoots, which still are growing rapidly. Banksian Roses should have the growths secured by string and nail to walls.

Supporting Plants.—Galtonias are the better for a short stick to each, which steadies the spikes. Otherwise they are apt to straggle over in every direction. *Montbretia rosea* also needs partially supporting, several spikes being tied to one short and light stake. As a rule, other sorts need no support. Single-stemmed Asters sometimes require steadying, but as a rule I find these and many other plants which are usually staked stand well without supports.

Hedges.—Complete the trimming of all kinds of evergreen hedges as soon as possible. This work takes a lot of time where extensive, but by choosing weather when ground work is impossible the time is not so greatly regretted. Trees in the form of peacocks, pillars, cones, etc., should also be trimmed now, which leaves them neat till next year. In formal gardens, Box or other edgings should also be clipped, obvious irregularities being eyesores where these are concerned. Note, however, that variegated shrubs, Yews in particular, should be only very slightly trimmed at this time of year, else the variegation may be impaired for many months.

The Bog Garden.

Iris lævigata.—This is now the cynosure of this spot. I do not find it to succeed in the garden;

not that the plants do not grow, but in most years they fail to flower. When constantly wet during summer, they flower consistently. The blooms, if cut before expansion, are splendidly decorative.

Ferns.—*Osmunda regalis* succeeds well in the bog, and on its edge *Adiantum pedatum*, along with the *Cystopteris*, and *Asplenium Lonchitis*, usually difficult to grow, succeeds also a little raised above the water-line, and with these Bamboos associate and thrive.

Lilium pardalinum.—This fine Lily does not always succeed in light soils, but in the bog on a mound of clayey loam it grows with amazing vigour. Its season of flowering is again at hand, the long stems needing some slight means of support to preserve them in an upright position.

Indoor Fruits.

Wasps.—I never recollect so many hanging nests of wasps as have been found and destroyed this year. The assumption is that, being early at work nest-building, we shall have the fruit-eating brood also early. Nothing beats hexagonal netting nailed over the ventilators—the top ones only if the bottom ones are kept closed—as a preventive against wasps for all indoor crops. In very hot weather the glass should be shaded to keep the temperature from getting too high owing to the lessened ventilation.

Split Berries.—A few varieties of Grapes are apt to have more or less of the berries split at this season. Whenever a few are seen to be split, in however slight a manner, the shoot bearing the cluster should be notched halfway through an inch or 2 inches below the junction. Muscat berries sometimes drop, seemingly without any cause; but on a close examination this proceeds from the skin cracking quite close to the place of junction of the berry with the petiole. Try the like means as a precaution.

Frame Melons.—These ripen well during the next six weeks by giving attention to ventilation so that the temperature in the daytime is high, and by means of coverings kept from falling low during the night. Expose the ripening fruits by raising them close to the glass. The fruits keep in good condition for a long time if preserved in a cool room.

The Plant-Houses.

Cinerarias.—These should be advanced enough to transfer from boxes to 4-inch pots. They grow rapidly in a rough compost made moderately firm, and after a few days' protection from the weather should be exposed night and day. Coolness is very important, and a platform of hard coal cinders, always kept moist, suits them well and is a certain means of preventing the attack of green fly.

Begonia Gloire de Lorraine.—The most forward of these are now ready to be staked out, using for the purpose extremely thin sliced Bamboo.

Begonia Gloire de Sceaux.—This is almost as useful as the last-named, and the plants may now be finally shifted into their flowering pots. It depends on the size of the material wanted what pots should be used. Very nice plants can be produced in 7-inch pots, and they can be shifted from small pots to large ones successfully. Rough rotted turf and dried cow-manure rubbed through a fine sieve suits them well. It is essential to have the foliage large and well-coloured, and only by keeping the plants growing freely and without the slightest check can this be attained.

The Vegetable Garden.

Spinach.—Where this vegetable is in request during winter, a large breadth should be sown in the course of a few days, choosing one of the broad-leaved varieties, which give much the best results. It usually succeeds some earlier crop, and the ground, as a rule, needs to be merely loosened with a fork to make it ready. In dry weather soak the drills with water previous to sowing the seeds, and use comparatively very few of these.

Celery.—A sufficient quantity for autumn use may be completely earthed up at any suitable opportunity. It is best done shortly subsequent to a heavy rainfall, or else in dry weather the day after artificially flooding the trenches. The stalks must be tied previous to applying soil, any coarse tying material being suitable, and instead of fastening the ligatures with a double knot, one is sufficient, provided it is turned twice instead of once.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

ALOE (D. H. P. Dennis).—We presume that by Aloe you mean *Agave americana*, which is often called the American Aloe. If that is so, it is unlikely that you will be able to keep the plants out of doors throughout the winter without running the risk of having them seriously injured or killed outright. In the event of severe frost occurring, you could erect a covering of mats around them, and so give them some protection; but, except in the extreme South-West of the country, we advise placing such plants under cover for the winter months. You may retub them at once. Take good, coarse, fibrous loam, three parts, and mix with it one part of pieces of sandstone and mortar rubble. You may also add a fair quantity of half-inch bones. Drain the new tubs well, and make the new soil very firm about the old balls.

SPARAXIS, HABRANTHUS AND LITHOSPERMUM (Collapit, Devon).—The Sparaxis might be safely transplanted early in September. The plant dislikes much lime, and luxuriates in moist and very sandy soils or a mixture of loam, peat, leaf-soil and sand in equal parts. A good depth of this and full moisture during growth should be assured. Bury the roots 4 inches or so below ground-level. In the case of severe frost, the bed should be mulched with light manure. The Habranthus prefers a bed of very sandy loam, well drained and about eighteen inches in depth. Lift and replant a few weeks after the bulbs have fully matured and the leafage has died down. Replant 5 inches deep. The Lithospermums are best propagated from cuttings inserted during August and September in a hand-light or frame placed in a rather shady spot. The soil should be made very sandy. The best cuttings are non-flowering shoots an inch or more long. These are best secured by cutting back the old flowering stems—these stems are practically useless for propagating—and with new growths appearing of the size indicated, strip them off with a heel attached and insert without more ado. With care in watering, the majority of such cuttings root quite well.

MADONNA LILIES AND WIREWORM (Mrs. M. M. G.).—There are several so-called soil fumigants that are supposed to kill this pest, though opinions vary considerably as to the fact, and our own experiences of some of them are not of a convincing nature. We know full well the trouble this pest is to growers of Lilies, Gladioli and other things; hence a perfect and always reliable remedy that would not inflict injury upon plant-life nor have a paralysing effect upon the soil would be a boon to all. The old remedy of gas-lime is still good where large areas have to be treated, though in the garden we think you cannot do better than try Apterite, now being advertised in our columns. A difficulty in your case would be that you could only treat the soil near where you desire to plant, and even though the pest be eradicated from that small area, it might be attracted to its food from other parts. The wireworm at this time of year works very near the surface, and light forking and hand-picking would get rid of many. You might also endeavour to attract them by means of Carrot or Potato traps sunk in the soil, arranging a few 1 foot or more from the groups of Lilies, and examining them from time to time. In the same way other parts of the border may be treated. The soil treated with fumigant would be ready for planting about ten days after the application. As your Lilies are in pots, there is no immediate hurry for planting them.

THE GREENHOUSE.

BEGONIA MITE (W. A.).—Your Begonias are badly attacked by the Begonia mite, to destroy which you must dip the plants in one of the many nicotine preparations, or vaporise with the XL All Vaporiser. In either case one application will not be sufficient, as two or three at intervals of a few days or a week will be required in order to make matters safe.

HELIOTROPE (W. S. S.).—Cuttings may be rooted in August and September, and the young plants kept in store pots for the winter, potted separately in February, and grown on to plant out of doors in June or to flower in the greenhouse. For the latter work, batches are brought

on to flower at intervals. This can be accomplished by rooting cuttings at various times and by attention to stopping. To our mind, Sweet Peas look best when each kind is kept distinct, although that is purely a matter of individual taste, some people preferring them mixed. In either case they are very pretty. Seeds of *Salpiglossis grandiflora* should be sown out of doors towards the end of March to bloom in July, or the seed may be sown indoors in boxes and the seedlings transferred to the open in May. A sunny position and good loamy soil with plenty of water are essentials to success. The plants ought to be at least 9 inches apart each way.

PRIMULA SIEBOLDII (E. P.).—This Primula is best treated as a pot plant, although good results are achieved when grown in beds or masses in the open ground, but partial shade is necessary. There appears to be nothing wrong with your plants. They usually commence to grow in the spring, and about April produce a good crop of flower-spikes, after which the plants gradually die down for a month or two. Occasionally a second lot of leaves and spikes appear, but not in such profusion as earlier in the year, when the plants go to rest for the winter months. Repotting takes place about February, and when root action is well advanced they need plenty of water till the foliage shows signs of decay, but even then the base must not be allowed to become dust dry. The creeping roots, or "stolons," may be taken off and potted up if it is desired to increase the stock. If your plants do not produce any flower-scapes, the cause is probably due to watering, or they may not be quite strong enough.

TREES AND SHRUBS.

MYRTLE (M. M.).—From the appearance of the Myrtle shoots sent for examination, we imagine that the plant either is, or has been, short of water. Although you may have given the plant, as you thought, plenty of water, it may have run round instead of soaking into the soil, a condition which often occurs when plants have been placed in borders after having been for a long period in pots. You cannot do better than uncover a portion of the old ball and examine it carefully. If it appears to be dry in the centre, place a rim of clay round the margin of the ball, and keep the basin formed filled with water until the soil is thoroughly soaked. Retain the basin for a few months for watering purposes. The plant is not likely to require feeding in the present state.

ROSE GARDEN.

FOLIAGE BLIGHTED (H. O.).—The foliage sent shows all the signs of injury by a very late frost, but the brown patches are the result of the Rose slugworm, a little pest very much about this year, and you will see recent remarks as to this pest in answer to other correspondents. We should say from the appearance of the small foliage that you did not prune your Roses sufficiently, for all of the varieties you name should have foliage twice the size of that you send; or perhaps the soil needs some good fertiliser, for the autumnal dressing of manure may not have been sufficient. If one expects good Roses, one must feed the plants, and when they are strong and healthy they can better resist these diseases and pests.

THE CHEROKEE ROSE (F. A. S.).—As you say that the American Cherokee Rose to which you refer bears white flowers, it is quite likely that it is the true Cherokee Rose of China, for some authorities say that the Cherokee Rose (*Rosa laevigata*, sometimes called *R. sinica*) is naturalised in the West Indies and in some parts of the Southern States of North America. It was introduced to English gardens in 1759, and probably found its way to the United States at an early date. If a specimen of the Rose could be sent, we should have no difficulty in identifying it. One distinct character is its evergreen, three-parted leaves. The plant was at one time named *Rosa cherokeensis*.

ROSES FOR SHADY POSITION (A. G.).—We should advise you to remove some of the old growths from the pergola. There is nothing gained in allowing Rambler Roses to smother other plants or usurp too much space; indeed, the blooming is usually much finer when old growths are removed. The best time to do this is in August, when the flowers have fallen. For the shady border to produce a good blaze of colour, we would suggest Polyantha and Monthly Roses, planting several plants of a sort 1 foot apart each way. Good kinds are Orleans, Jessie, Katherine Zeimet and Mrs. Cutbush among Polyanthas, and Old Crimson China, Fabvier, Leuchtfleur, Crimson Pink and White Pet. Some of the lovely Tufted Pansies will grow well in a partially-shaded border, so also will the many brilliant-coloured forms of *Phlox decussata*.

FRUIT GARDEN.

KEEPING PEARS AND APPLES (J. C. Le S.).—We are sorry we cannot throw any effective light on the very interesting question asked by a correspondent. We repeat the question here in the hope that some of our readers may be able to do so: "Could you give me the best methods for keeping fruit, such as Pears and Apples? I know there are many and various kinds of store-rooms, but even with the best of these one cannot keep fruit long. What I would like to know is, if one could devise a plan whereby fruit would be put in large tin vessels and the air pumped out, if the fruit would keep in that manner, say, for six or eight months. I know all about the system of preserving through canning; but, of course, this is heated in order to get the air out. The question, therefore, is: Would fruit keep any time in what is known as empty space, or, I should say, where the air is not?" A large number of

late-keeping Pears and Apples have been added to our collections of late years, so that the urgency of this process is not so greatly felt as it used to be.

NECTARINES AND PEACHES (Bruce).—We have little doubt but that the Nectarines are suffering from skin scorching by hot sun gleams, probably in the early morning when the house was insufficiently ventilated. It is a common occurrence in hot weather, especially in the case of the Nectarine, but seldom so with the Peach. The cause of the Peaches splitting we would attribute to a heavy watering, followed by a hot day and an insufficiency of ventilation. It is better to water in the evening, especially when the fruit is approaching the ripening period, admitting air freely.

GRAPES DISEASED (H. S.).—Your Grapes are suffering from the effects of a disease termed "scalding." It invariably attacks the Grapes about the time the berries are nearly at their full size and when they begin to colour. It is caused by a too cold, close and sluggish atmosphere, especially at night. The way to arrest its further progress and to prevent an attack next year is to ventilate theinery freely front and back at this stage of the Vine's growth, both day and night. Should the weather turn cold at night, have a little heat in the hot-water pipes. This will prevent the temperature falling too low, as well as assist the free circulation of air and so prevent a sluggish atmosphere.

PLANTING APPLE AND PEAR TREES (R. T.).—Apples, we think, would pay you better than Pears. The bush form of trees for Apples, and the pyramid for Pears would, we think, be the best. The Apples should be worked on the broad-leaved English Paradise stock, and the Pears on the Quince. If the ground can be trenched before planting, the progress of the trees afterwards will prove much more satisfactory, and the ground between them may be planted with Strawberries or Gooseberries without any harm being done, so long as they are not planted too near the stems of the trees. On no account must grass be permitted over the roots of the trees. We presume that you wish to grow for sale, and not for home consumption. We therefore give a list of varieties suitable for your purpose: Apples, dessert varieties.—Devonshire Quarrenden (early), Worcester Pearmain (early), James Grieve (September and October), Ellison's Orange (September and October), Cox's Orange Pippin (October to Christmas), King of the Pippins (November to Christmas), Allington Pippin (November to Christmas), Christmas Pearmain (November to January), Barnack Beauty (January to February), Sturmer Pippin (February to May). Apples, cooking varieties.—Potts' Seedling (August to September), Grenadier (October), Lord Derby (November and December), Warner's King (November and December), Lane's Prince Albert (January and February), Annie Elizabeth (January and February), Newton Wonder (February to May), Bramley's Seedling (February to May), Sandringham (February to May). Pears, dessert varieties.—Beacon (very early August), Fertility (September), Hesse (September), Marie Louise (October), Williams' Bon Chrétien (October), Emile d'Heyst (November), Doyenné du Comice (November), Bickling (January to February), Le Lectier (January to February).

KITCHEN GARDEN.

TOMATOES (G. W. B.).—The Tomatoes appear to lack a sufficiency of potash. Water the plants now with a solution of half an ounce of sulphate of potash in two gallons of water.

CELERY BOTANICALLY (J. D.).—From all botanical, as well as from all cultural, points of view, Celery (*Apium graveolens*) is a biennial. If sown very early under glass, the plants grown on strong and rapidly, it often assumes an annual character, as it is sometimes common to find otherwise fine blanched stems in the autumn to have begun inside to send out flower-stems. If Celery be planted out in quantity for seed production, the plants not being blanched, they all bolt to flower the following summer. However, it may be possible to change the nature of Celery, were plants growing in the open ground now blanched and the leaves kept rather hard picked for soup flavouring; also, if flower-stems broke, these were picked out. It is quite possible in such case that the whole nature of the plant might be changed, but we have had no experience of it. Is the writer you refer to really worth powder and shot?

CABBAGES (L. W. S.).—Your Cabbages, &c., are attacked by the Cabbage-root maggot. This is the grub of a blackish, two-winged fly, rather similar in appearance to the house-fly. It lays its eggs near the Cabbage root, and sometimes upon it, in May or June, and the grubs pupate in the soil, turning to flies after a short time, there being about three, perhaps four, broods during the year. The pest is extremely difficult to deal with, and seems particularly abundant and troublesome this year. Some success has attended watering along the rows with an emulsion of carbolic acid made by dissolving 1 lb. of hard soap in one gallon of boiling water to which is added one pint of carbolic acid, the whole being churned with a syringe until thoroughly emulsified, and then diluted with twenty times its bulk of water. Care should be taken not to touch the plants when watering. Nitrate of soda will sometimes prevent the flies from laying their eggs, and the American growers put a piece of card close on the soil round the plants so as to prevent the fly getting near.

MISCELLANEOUS.

FUNGI (M. D.).—You would probably find the best book with plates of British fungi is "Cooke's Illustrations," which may be purchased for about £12 or £13. Cheaper books with coloured plates are published from time to time, but it is very difficult to get the colours true

Routledge have recently published one containing figures of many and descriptions of most of the larger fungi. You will find full descriptions in "Massee's Fungus Flora" and W. G. Smith's "British Fungi" (published by the British Museum). Your fungi are apparently (a) *Russula cyanoscantha*, not *A. heterophyllus*; (b) *Amanita rubescens*; (c) *Polyporus squamosus*. Badham's is the best book on edible fungi; but you, as a medical man, will recognise that not all people are affected in the same way by fungi.

NAMES OF PLANTS.—Colonel E. P. B.-S.—The Roses are: 1, Marie van Houtte; 2, Souvenir de Pierre Notting; 3, Pride of Waltham; 4, Comtesse F. Hamilton. —G. H., Sheffield.—1, Petals fallen; 2, Fisher Holmes; 3, Prince C. de Rohan; 4, Caroline Testout. —H. H., Hyde Park.—*Ulmus campestris viminalis aurea*. —Ignoramus.—1, *Sedum stoloniferum*; 2, *Sedum spurium*; 3, *Tunica prolifera* (not rare). —R. A., Dumfriesshire.—1, *Spiraea canescens*; 2, *Geranium Endressii*; 3, *Philadelphus microphyllus*; 4, *Poterium canadense*; 5, *Cassia fulvida*; 6, *Stachys Betonica* (Wood Betony); 7, *Berberis vulgaris* (Barberry); 8, *Lonicera alpigena*; 9, *Sutherlandia frutescens*. —E. M., Parkstone.—*Rhus Cotinus* (Venetian Ash). —G. W. G., Yorks.—*Sidalcea Listeri*. —Nectans.—*Michauxia campanuloides*. —P. H., Airdrie.—1, *Eriogonum glauca*; 2, *Sidalcea candida*; 3, *Centaurea montana*; 4, *Lychnis dioica flore pleno*; 5, *Dicentra formosa*; 6, *Geranium sanguineum* (Bloody Crane's-bill); 7, *Poterium canadense*; 8, *Spiraea Menziesii*. —P. A. S., Wrexham.—*Genista tinctoria* (Dyer's Green-weed); *Dianthus deltoides* (Maiden Pink). —M. M. F.—Six inches, *Oxalis floribunda*; 1 foot, *Linum grandiflorum*; 2 feet, *Eriogonum glauca* (Godetia). —A. T. U.—1, Carnation, crimson self, Nox; 2, seedling, ragged rose self; 3, seedling, white-ground Picotee, heavy purple edge, ground not clean; 4, seedling fancy.

SOCIETIES.

NATIONAL CARNATION AND PICOTEE SOCIETY.

THE annual exhibition of the southern section of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, on July 23. By a general consensus of opinion the quality of the blooms was decidedly good, although amateurs in Southern Counties would have done better had the show been ten days earlier. There were numerous non-competitive groups, chiefly of herbaceous plants, which brightened the hall and helped to relieve the inevitable monotony of show-boards and vases. In the early part of the afternoon the attendance was meagre, but later on visitors came to the hall in good numbers.

FIRST DIVISION.

For a stand of twelve blooms on cards, bizarres and flakes, Mr. C. F. Thurstan of Wolverhampton led the way, closely followed by Mr. J. Douglas, Great Bookham, and Mr. H. Mathias, Medstead, Hants. The varieties *Flamingo*, *Ophelia* and *Gordon Lewis* were well represented.

In the class for twelve selfs, shown on cards, Mr. Mathias was first with a splendid stand, including a dressed flower of *Maud Allen*, which was awarded a special prize as the premier self Carnation. Mr. Thurstan was second and Mr. J. Douglas third.

Mr. Mathias was again successful in a stand of twelve fancies. A beautiful bloom of *Becky Sharp* was awarded the special prize as the premier fancy Carnation. Messrs. Thurstan and Douglas followed in the order named.

Messrs. A. R. Brown, Limited, King's Norton, were first for twelve Picotees, white ground; Mr. J. Douglas second, the latter showing a capital bloom of *Amy Robsart*, the premier heavy-edged white-ground Picotee in the show.

For twelve Picotees, yellow ground, Mr. H. Mathias was first with a perfect stand in colour and quality. Mr. J. Douglas' second-prize stand contained a dainty bloom of *Mrs. J. J. Keen*, awarded the special prize as the premier heavy-edged yellow-ground Picotee.

Mr. J. Douglas was an easy winner for four selfs in vases, showing *Bob Acres*, *Daffodil* (of exceptional size), *Mrs. G. Marshall* and *Mrs. G. Jones*. It was an excellent exhibit, and aided the exhibitor in securing the silver cup given to the winner of the highest aggregate number of points gained in the first division.

Mr. Douglas was again successful for four fancies in vases, his vases of *Pasquin* and *Lord Steyne* being much admired. The same exhibitor was first for four white-ground fancies. The variety *The Bride* was in great form. He was again first for four Picotees, yellow ground. In the last-named class *Mrs. J. J. Keen* was one of the best varieties shown.

A good deal of enthusiasm was centred around the class for nine distinct selfs, fancies and yellow-ground Picotees. Mr. Douglas was first with a superb collection, followed by Mr. Mathias and Messrs. A. R. Brown, Limited. We were much impressed with the excellence of the blooms of *Linkman* shown in the first two collections.

SECOND DIVISION.

Three lovely blooms of *Lady Hermione* enabled Mr. D. Walker of Kilmarnock to carry off the premier award for a vase of pink or rose self varieties.

Mr. R. Morton, Woodside Park, was first in a similar class for whites with first-rate blooms of *Mrs. Eric Hambro*; and again for dark red or maroon selfs with *Mrs. George Marshall*.

Mr. Morton was again to the fore in a well-contested class for a vase of yellow selfs. The variety *Daffodil* was much in evidence in this class.

For three blooms of red or scarlet selfs, Mr. W. H. Parton, Moseley, was first, followed by Messrs. Walker and Morton.

Mr. R. Morton was once more successful in the class for a vase of yellow-ground Picotees, showing *Exquisite* in fine form; and again for buff or terra-cotta selfs with lovely blooms of *Elizabeth Shiffner*.

Mr. G. D. Ford, Acock's Green, was first for yellow or buff ground fancies with exquisite blooms of *Mrs. Penton*; and Mr. W. H. Parton led the way for three fancies other than yellow, buff or white ground with the vivid pink *J. Sebright*.

There was very keen competition in the class for six selfs, fancies and yellow-ground Picotees, and that successful exhibitor Mr. R. Morton again took premier honours. Mr. W. H. Parton was a good second, and Mr. E. J. Price, Bournville, was a creditable third.

The dressed blooms shown on boards, each with a white paper collar, still attract much attention, especially from those who admire the Carnation solely as a florist's flower. Mr. H. R. Taylor of Cheam and the Rev. C. A. Gottwaltz were notable winners in this section.

The Martin Smith Memorial Challenge Cup, open to amateurs only, was won by Mr. Robert Morton.

The premier award for table decorations was won by Mr. E. J. Price, Bournville.

THIRD DIVISION.

This division is set aside for those who do not grow more than 300 plants in pots and do not employ a gardener regularly nor advertise plants for sale. The quality of the blooms in this section was remarkably good, and we much regret that pressure on our space prevents us from giving a detailed report.

Mr. J. B. Willett of Yardley was first for six selfs, showing first-rate blooms of *Sir Galahad* and *Elizabeth Shiffner*.

Mr. Willett was again successful for six fancies, followed by a highly creditable exhibit from Mr. E. C. Chambers, Wellingborough.

OPEN CLASSES.

Some of the very best blooms in the show were to be seen in the open classes. Mr. Douglas was a prominent exhibitor, gaining first prizes with excellent vases of *Bob Acres*, *Rosy Morn*, *Daffodil*, *Mrs. G. Jones* and others. The Cartwright Challenge Cup and a silver-gilt medal were won by Mr. Douglas for the excellence of his exhibits in the open classes.

Mr. H. Mathias was successful in the class for nine white blooms, showing *Titan* in unrivalled form and purity.

Mr. Lakeman, who also showed a magnificent non-competitive group of Carnations, gained the first place for nine dark red or maroon selfs, showing the well-known variety *Mrs. George Marshall*.

HASLEMERE HORTICULTURAL SOCIETY.

THE forty-second annual show of this society was held in the grounds of Whitwell Hatch, Haslemere, the residence of Earl Altamont, on Wednesday, July 24. The glorious natural surroundings of the place made the occasion a delightful change, especially after the dingy setting of some of the larger shows. The entries were numerous, the quality of the exhibits decidedly good, and the attendance was satisfactory. There were a few good non-competitive exhibits. Messrs. G. Jackman, Woking, staged a collection of *Roses* in good condition. They also put up a few hardy perennials. The Guildford Hardy Plant Nursery had a stand of perennials, including herbaceous *Phloxes* and many other good things. Messrs. Maurice Young and Sons, Milford Nurseries, also staged perennials and a few *Roses*, as did Messrs. Gauntlett. The amateurs' and cottagers' sections were filled to overflowing with capital produce, and it would be invidious to single out any individual exhibitor for special praise. The children's classes were interesting, and other societies might take a lesson from Haslemere. Collections of mosses, wild flowers and pressed specimens were well staged, and betokened infinite care on the part of the little exhibitors, and when they (the prize-winners were mostly boys) received their prizes from Countess Cawdor, their smart military salute was delightful to behold. The band of the Royal Engineers (Aldershot) on the tennis lawn and the morris dancing by the village school-children helped to impart a fairy-like aspect to a most enjoyable show.

BRIGHTON AND SUSSEX ROSE AND SWEET PEA SHOW.

THE twenty-first annual exhibition was held at the Dome and Corn Exchange on July 23 and 24. This date, unfortunately, proved too late for many, who perforce were compelled to cancel their entries, especially in the Rose classes. The trade, however, made up for the deficiency. Specially attractive was an arrangement of ornamental plants—stove and greenhouse—by Messrs. Balchin and Son, Brighton, as also the lengthy staging of rare and choice vegetables, Melons, &c., tastefully interspersed with hardy and other choice flowers, displayed by Messrs. Sutton and Sons, Reading, both exhibits receiving an award of a gold medal. Another remarkable display was that of Carnations from the Clury Nurseries, Langley, Bucks, which evoked general admiration and many regrets that the committee had not bestowed upon it a

higher award than a silver-gilt medal. Other recipients of the same class of medal were: Mr. G. W. Piper, Uckfield, for *Roses*; Messrs. Wells and Co., Merstham, a brilliant display of *Phloxes* and *Carnations*; Barnham Nurseries, Limited, *Roses* and choice herbaceous flowers; Mr. Frank Woollard, Brighton, *Roses*. Silver medals were awarded to Messrs. Blackmore and Langdon, Bath, for a striking display of *Begonias*; Messrs. Cheal and Sons, Crawley. Sweet Peas and miscellaneous hardy flowers; Messrs. George Miles and Sons, Mr. James Davies, and Messrs. Tilley and Sons, Brighton, horticultural sundries; and Messrs. Peters, Brighton, beautifully-displayed floral designs.

COMPETITIVE CLASSES.

In the open classes for plants, Mr. Frank Woollard secured the handsome silver cup, the society's silver medal and first prize for a group of *Roses*, either plants or plants and cut blooms.

Miscellaneous group of flowering and foliage plants arranged for effect in a circle 10 feet in diameter: First and silver medal, Mr. Charles Moppett, jun.

Mr. George Chandler led for a table of flowering and foliage plants, followed by Messrs. George Miles and Son and Mr. Charles Moppett, jun., in the order named. Mr. Chandler was successful in the class for a circular group of miscellaneous flowering and foliage plants, winning outright the handsome silver cup offered in this class. The Corporation's Challenge Bowl, offered for retention for one year to the most meritorious exhibit in the show, was awarded to this group.

In the cut-bloom class, Mr. Frank Woollard was the most successful competitor, scoring for thirty-six cut blooms of *Roses*, distinct, and also for twenty-four blooms, distinct. Mr. W. R. Hammond was first for twelve blooms, distinct, followed by Mr. E. W. Morris, Uckfield. In the classes for eighteen blooms, *Teas* or *Noisettes*, and twenty-five long-stemmed *Roses*, Mr. Frank Woollard again led.

SWEET PEAS.

Twenty-four sorts in twenty-four vases, twenty stems of each: First and silver medal, Mr. W. R. Hammond, Burgess Hill; second, Mr. H. MacFadyen, Cuckfield Park; third, Mr. C. Marshall.

For twelve sorts in twelve vases, Mr. W. H. Smith led, with Mr. G. Pilgrim second and Mr. W. G. Pelley third.

For thirty stems of white, Mr. Samuel Watkins was first with *Etta Dyke*; second, Mr. W. H. Smith; third, Mr. A. Sayers.

Thirty stems of pink: Mr. W. H. Smith was first with excellent sprays of *Hercules*; second, Mr. A. Jewell; third, Mr. J. Martin.

Thirty stems of blue or mauve: Mr. A. Jewell came first with *Flora Norton Spencer*; second, Mr. H. MacFadyen; third, Mr. W. H. Smith.

Thirty stems of crimson or scarlet: Mr. A. Jewell again led with *Maud Holmes*, followed by Mr. W. H. Smith and Mr. G. H. Bennett third.

Six vases of Carnations, eighteen blooms in each vase: The society's silver medal and first prize fell to the Clury Nurseries, with lovely blooms of *Mikado*, *Fair Maid*, *White Perfection*, *Winsor*, *Mrs. C. W. Ward* and *Lawson Enchantress*. Mr. G. Eastwood, Hassocks, was second.

EAST ANGLIAN HORTICULTURAL CLUB.

OVER one hundred members and friends joined in the summer excursion of this club to the noted gardens at Westwick House, Norwich. Colonel Petre, through his genial gardener, Mr. George Davison, had thrown the whole of the gardens, woods and fruit farm open for the party to ramble at their own will. The day was rather cooler than the previous few days, which was much to be thankful for. Almost as soon as the visitors entered the gardens they were passing under a huge pergola over three hundred feet long, and covered with all the choice subjects associated with such locations. The varieties of *Vitis* were most numerous, and gave a charming effect. A little further, and the visitor was passing along a herbaceous border over three hundred and fifty feet in length and at no part less than 30 feet wide. The subjects here are planted in large bold masses, and to see them in their glory is a sight to be remembered. Most hardy plant growers know what Mr. Davison has done to improve the *Montbretia*, and it was not to be wondered at that huge tracts of the garden are planted with this flower. We saw some plants not yet in commerce, bold in foliage and pictures of health. Everything in the greenhouses and vineries seems thriving at its best, pointing all along to the skill of the man in charge. Fruit-growers, and especially those who have visited the autumn shows of the Royal Horticultural Society for British fruit, know of Mr. Davison's skill in the culture of Pears. To see his trees is an education. This year they are better than ever, and we shall not be surprised to hear that important prizes are won with fruit from them this year. Apples, too, are looking in first-class condition. After the mansion garden had been thoroughly inspected, the party, under the escort of Mr. Davison, wended their way to the fruit farm, in which Colonel Petre has taken great interest. Tons of Black Currants had just been gathered and sent away, and the pickers were busy upon the Raspberries. All these pickers are local people, and the money they are able to earn in this work is a great benefit to the local community. The woodlands, noted for their many kinds of timber, especially Firs, were not forgotten, and the large lakes added a charm to the whole of the sylvan scene. Much more could be said, but one must not encroach on the space further. Suffice it to say that everyone interested themselves and were well pleased with the visit.

DUNFERMLINE ROSE SHOW.

THE annual Rose show of the Carnegie Dunfermline Trust, affiliated to the National Rose Society, was opened in a marquee in Pittencrief Park, Dunfermline, on July 18. There was a large entry, comprising many of the leading growers of Roses, Sweet Peas and other flowers in season. The show was generally recognised as one of the best which have been held at Dunfermline, the liberal support granted by the Trust leading to an excellent entry. Roses were extremely fine, and it is doubtful if they have ever been better shown at Dunfermline than this year.

The leading prize in the Rose classes—the Carnegie Championship Prize of £10, for seventy-two cut blooms in not less than thirty-six varieties—was carried off by a new exhibitor at this show, Mr. W. Frettingham, who staged a grand lot of flowers, including magnificent blooms of some of the favourite Roses of the day. In the class for thirty-six, in not fewer than eighteen varieties, the winners were Messrs. James Cocker and Sons, Aberdeen, who made a good exhibit of flowers of high quality. The other winners for Roses comprised Messrs. D. and W. Croll, Dundee; The King's Acre Nurseries, Limited, Hereford; Messrs. Adam and Craigmile, Aberdeen; Mr. T. Park, Bedale; Mr. R. Harkness, Hitchin; Mr. W. Ferguson, Dunfermline; Mr. R. Fraser; Mr. W. Ness; Mr. R. Ferguson, Dunfermline; and Messrs. Fairly and Co., Dunfermline. In the classes confined to Scotland there were many good flowers, and the exhibits were highly creditable to Scottish growers. Here the following distinguished themselves: Messrs. James Cocker and Sons; Messrs. D. and W. Croll; Messrs. R. B. Laird and Sons, Edinburgh; Mr. R. Ferguson, Dunfermline; and Mr. P. Mackenzie, Row.

In the Rose classes for gardeners and amateurs, the leading prizes fell to the lot of that famous Southern rosarian, Mr. Conway Jones, other winners including Mr. P. Mackenzie, Mr. J. Pearson, Mr. L. Black, Mr. J. Simpson and others. The amateurs' and gardeners' classes confined to Scotland brought out many good exhibits, but space cannot be spared for detail.

Messrs. James Cocker and Sons received a deserved and appropriate award at a Carnegie Trust show for their new Rose Mrs. Andrew Carnegie, which was worthy of the gold medal and first-class certificate the firm received. The same firm had also the best Hybrid Perpetual or Hybrid Tea in the show in J. L. Mock, thus winning the National Rose Society's silver-gilt medal. Mr. W. Frettingham was awarded the medal for the best Tea or Noisette with Mme. Jules Gravereaux. Mr. J. Simpson had the best Hybrid Perpetual or Hybrid Tea in the gardeners' or amateurs' section with William Shean, and Mr. Conway Jones the best Tea or Noisette with Mme. Jules Gravereaux.

The Sweet Pea classes were very fine indeed, probably surpassing the displays of former years, Mr. J. Machar, who has been a highly-successful cultivator for some time, winning the leading award in the principal class—that for twelve vases—with very fine blooms, characterised by size and beauty of form and colour.

SALTAIRE ROSE SHOW.

THIS society, which is affiliated to the North of England Horticultural Society, held its annual show in Saltaire Park on July 17. The North of England Horticultural Society also held their summer show at the same time, thus getting together such a magnificent collection of blooms as Saltaire has never been honoured with before. Apart from the two large tents containing the non-competitive exhibits, the number of exhibitors who staged for the 111 classes was larger than in any previous year of the society's existence.

Messrs. Alex. Dickson and Son, Newtownards, took all before them in the leading classes for Roses. In the class for sixty blooms, distinct, they came out an easy first, winning the society's 100-guinea Northern Championship Challenge Rose Bowl and gold medal. Also in the class for thirty-six blooms, distinct, they beat all comers. In the class for the Northern Championship Rose Bowl, some of the most outstanding blooms were Alice Lindsell, Beauty of Waltham, George Dickson (new), La Galissière, Lady de Bathe, George C. Waud, Mabel Drew, Mrs. Foley Hobbs, J. R. Davison and Lord Powerscourt. Other exhibitors to the front were Messrs. Hugh Dickson, Belfast; Messrs. D. Prior and Sons, Colchester; and Messrs. Harkness and Co. Hitchin. Among local growers Mr. T. Park of Bedale came in for many successes.

The banks of Sweet Peas came in for much admiration from the ladies, and the large stand staged by Mr. T. Bolton of Carnforth almost beggars description, so great was the range of colours, while the staging was a perfect example of combining colours in a true artistic way. The North of England Horticultural Society awarded a gold medal to this wonderful grower for his equally wonderful exhibit.

Among hardy flowers some excellent exhibits were got together, that put up by Messrs. Gibson and Co., Bedale, consisting of blooms which were fresh and in good condition, while the arrangement of colours was very attractive, and what was more in this exhibitor's favour was the lightness with which it was put together. Many of these hardy flower exhibits which we see at various shows are spoilt by trying to put in too many flowers. In many cases half the number would give a much better effect.

Roses.—Some of the leading classes were—Sixty blooms, distinct: First, Messrs. Alex. Dickson and Sons, Limited, County Down; second, Messrs. Hugh Dickson, Belfast; third, Messrs. Harkness and Co., Hitchin. Thirty-six blooms, distinct: First, Messrs. A. Dickson; second,

Messrs. Chapman and Colins, Leicester; third, Mr. H. Drew, Longworth, Berks; fourth, Messrs. H. Dickson. Sixteen distinct varieties, three trusses of each. First, Messrs. A. Dickson and Sons; second, Messrs. H. Dickson; third, Messrs. D. Prior and Sons, Colchester; fourth, Messrs. Harkness and Co., Hitchin. Twenty-four distinct blooms: First, Messrs. A. Dickson and Son; second, Messrs. Hugh Dickson; third, Messrs. D. Prior and Sons. Twenty-four Hybrid Teas, distinct: First, Mr. W. Bentley, Leicester; second, Messrs. A. Dickson and Sons; third, Messrs. Hugh Dickson. Twelve blooms, Tea or Noisette: First, Mr. H. Drew; second, Messrs. Hugh Dickson; third, Mr. A. H. Rigg, Baildon. Twelve blooms of any one light Rose: First, Messrs. R. Harkness and Co.; second, Messrs. D. Prior and Sons; third, Mr. W. Bentley. Twelve blooms, dark Rose: First, Messrs. A. Dickson and Sons; second, Mr. H. Drew; third, Messrs. H. Dickson.

Among the amateurs, Mr. T. Park, Bedale, was the winner with thirty-six, eighteen and twelve blooms, while the same exhibitor scored with twelve Teas or Noisettes, six light Rose and six dark Rose.

Within a radius of twenty miles, for local amateurs, in Class 39, with twenty-four blooms, not less than eighteen varieties, Mr. D. G. Law, Hawksworth Hall, was first; second, Mr. J. W. Merall, East Morton; third, Mr. A. W. Hoffmann, Baildon. The National Rose Society's bronze medal was secured by the winner in this class with a bloom of Mildred Grant. For twelve Hybrid Teas, not less than nine varieties, Mr. D. G. Law was first; second, Mr. A. W. Hoffmann; third, Mr. G. C. Waud.

Sweet Peas.—Eighteen bunches, distinct: First, Mr. G. H. Garnett-Orme, Stapton; second, Messrs. Castle Brothers, Carnforth. The winner also carried off the solid silver Sweet Pea bowl presented by the Lord Mayor of Bradford. Twelve bunches, distinct: First, Mr. J. Smellie, Busby; second, Mr. F. J. Harrison; third, Mr. C. E. Taylor, Carnforth. For local nurserymen the chief winners were Messrs. W. S. Heslington, P. Clark and A. Florry. Local amateurs within a twenty-mile radius: Among the winners were Messrs. S. Shackleton, Cross Hills, G. H. Garnett-Orme and W. S. Heslington.

Pansies, Violas and Carnations.—Fancy Pansies, twenty-four distinct: First, Mr. J. Smellie, Busby. The same exhibitor was first with twelve distinct and forty-eight distinct. Violas, twenty-four distinct: First, Mr. J. Smellie. Six sprays: First, Mr. F. J. Belt, Whitley Bay. Carnations: First, Mr. H. Stansfield, Bradford; second, Dr. W. H. Whitley.

The North of England Horticultural Society awards were as follows:

Gold medal to Mr. Robert Bolton, Carnforth, for Sweet Peas. These have already been mentioned.

Silver-gilt medals to Messrs. G. Gibson and Co., Bedale; Messrs. Harkness and Co., Bedale, for hardy cut flowers; and Messrs. W. and J. Brown, Peterborough, for dwarf and Rambler Roses.

Large silver medals to Messrs. William Artindale and Son, Sheffield, for a group of hardy cut flowers arranged on the floor representing a herbaceous border; Messrs. J. Batchelor, Harrogate, for Ferns; and Messrs. Dobbie and Co., Edinburgh, for Roses, Violas, Sweet Peas and Dahlias.

Silver medals to Mr. F. J. Bell, Whitley Bay, for Violas; Mr. Alva J. Hall, Harrogate, for rock and herbaceous plants; Mr. W. J. Unwin, Histon, Cambs, for Sweet Peas; and W. A. Simpson-Hinchliffe, Esq., Mytholmroyd, for English Irises.

HORTICULTURAL CLUB OUTING.

THE usual annual outing of the members of this club took place on Thursday, the 18th ult., and, despite the unseasonable lapse into chilly and gloomy weather, was an extremely enjoyable one. Some fifty ladies and gentlemen, occupying two saloon carriages, reached Slough from Paddington about midday, proceeding thence in motor-brakes to Stoke Poges, where they visited the old church, sacred to reminiscences of the Poet Gray, whose tomb is in the churchyard, and also as containing the pew of William Penn, whose name is equally immortalised as the founder of the now great State of Pennsylvania. Leaving the old church, parts of which date back to the twelfth century, the party were then driven through Burnham Beeches and the charming woodland of which they form a quota, stopping to partake of a very excellent lunch at Wingrove's Restaurant there. Among the guests were two from Canada—Professor Hutt and Mr. Whyte—and the usual toast of "The King" having been honoured, Mr. Druery proposed that of the visitors generally, coupling their names therewith, in response to which toast they replied in highly-appreciative terms as regards the hospitality they were enjoying, the wondrous beauty of the places they were privileged to visit, and last, but not least, the heartfelt reciprocity with which they and their fellows from Canada had recently met in their endeavours to increase the solidarity of the great British Empire by fraternal co-operation. The lunch over, the party proceeded to Cliveden, where, by permission of W. W. Astor, Esq., they were conducted by Mr. Camm, the head-gardener, through the magnificent grounds and gardens, enjoying *en route* innumerable glimpses of the picturesque meandering reaches of the Thames, which limits the estate in that direction. Though the day was gloomy and threatening, only a few drops of rain fell, and the air was sufficiently clear to detract no whit from the beauty of the many vistas afforded through judicious gaps in the woodland. From Cliveden the party were then driven, by special invitation of Sir Harry J. Veitch, to East Burnham Park, where tea was provided and another opportunity afforded of inspecting more beautiful gardens, laid out on most charming lines,

and, of course, under such auspices as those of the host, replete with the latest and most beautiful horticultural acquisitions. The party were then driven back to Slough Station, where the saloons were awaiting them, and expressed themselves as deeply grateful to both Sir Harry Veitch and Lady Veitch for their kindly hospitality, and to Mr. Hooper Pearson, the hon. secretary of the club, for the completeness of the arrangements which had been made by him, with Sir Harry Veitch's aid, for their comfort and enjoyment during the day.

READING GARDENERS' ASSOCIATION.

ANNUAL EXCURSION.

THE strongest muster of members for the society's annual excursion since the memorable trip to Welbeck Abbey in 1907 assembled on July 18, when, by kind permission of Waldorf Astor, Esq., the beautiful gardens and grounds at Cliveden, near Maidenhead, were visited. It was regarded as certain that the excursion would be highly popular, and the committee had chartered the splendid steam-launch *Majestic* for the conveyance of the party, which, accompanied by the president, Mr. Alderman Parfitt, and Mr. W. Pole Routh, started from Caversham Lock at 9.30 a.m., picking up outlying members at several locks and at Henley until the number reached 150. Favoured by perfect weather, the run through the charming Thames scenery, just now in its loveliest garb, was greatly enjoyed by all. After a stop at Henley to pick up the local members, a pleasant run was made to Marlow, reached half-an-hour behind time. Here on the well-known bridge, looking out for the launch, the vice-president was despatched, and, joining the boat at the lock, Mr. Sutton was accorded a hearty welcome. Cliveden was reached at 1.40, nearly an hour behind time. At the landing-stage the party were met by the head-gardener, Mr. W. Camm, and under his guidance at once proceeded by the steep winding path to the summit of the hill, and thence to the huge covered tennis court, where, through the kindness of the vice-president, an excellent luncheon was in readiness.

After the repast had been done full justice to, the president submitted the loyal toast, which was, of course, heartily received. The chairman then proposed the health of Mr. Astor, coupled with the name of Mr. Camm, who he requested to convey to Mr. Astor the hearty thanks of the company for his kindness in permitting a visit to his lovely demesne and thus affording the members such a delightful outing. Mr. Camm having responded, the chairman proposed a vote of thanks to the vice-president for so kindly entertaining the party. This was carried amid applause, and Mr. Leonard Sutton replied expressing the pleasure it gave him to be with the members that day. Mr. Drew then proposed a vote of thanks to the president for again affording the members the pleasure of his company on the occasion of the annual excursion. This was seconded by the hon. secretary and carried with acclamation. Leaving the tennis court the party walked across the charming private golf course, with its lovely sylvan surroundings, in the direction of the gardens, before reaching which a pretty water garden with attractive Nymphaeas and aquatic birds (flamingoes) was crossed by stepping-stones. The fine range of glass-houses and the walled garden were then inspected, and a move afterwards made in the direction of the house. The mansion, situated immediately above the world-famous Cliveden Woods, which renders the Thames at this point so singularly beautiful, claims as its founder George Villiers, Duke of Buckingham, favourite of Charles II., and was for a time occupied by Frederick Prince of Wales, father of George III. Two former mansions having been destroyed by fire, the present handsome structure in the Palladian style was designed and erected by the late Sir Charles Barry, and stands in a beautifully-timbered park of 300 acres. Passing through the forecourt, lawns and gardens gay with colour, the terrace on the south front was gained. From this point of vantage a view of surpassing beauty is obtained—in the foreground the charming and extensive Italian garden, exquisite in design; beyond, the sylvan mass rising abruptly from the Cliveden reach of the Thames, and in the distance the beautifully-wooded counties of Berks and Surrey. Passing round the mansion, the glass-houses immediately adjacent were inspected, and then a visit was paid to the charming herbaceous garden just in the zenith of its beauty.

SCHOOL GARDENING IN NORFOLK.

IN the midst of horticultural shows in towns and villages that are so prevalent now there was one dovetailed in at Norwich on the 20th ult. that was most interesting. It consisted of exhibits, mainly of vegetables, from all the schools under the jurisdiction of the Norfolk County Council, where gardening forms part of the educational routine. No prizes were offered. It was a show of results to prove the worth of this side of the lads' education. Mr. H. Goude, F.R.H.S., the horticultural instructor and lecturer, visits centres from time to time and instructs the teachers, and when possible also visits the pupils' gardens. After seeing the results one can clearly see that the young mind is being trained into a channel of usefulness, especially for a rural population. The whole of the exhibits were a credit to the lads, while the essays and notes on "what to do and how to do it"—if one may use such a phrase—were striking evidence of impressions thoroughly made. There were also specimens of pests and drawings, with their life-histories worked out, which must be of practical usefulness to the lads in years to come. We congratulate the committee of the Norfolk County Council and Mr. Goude on their work.

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting of the above society was held at Vincent Square, Westminster, on Tuesday, July 30. The exhibition was much smaller than usual; at the same time, there was a bright display of such hardy flowers as Gladioli, Phloxes and Pentstemons.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), Sir Harry Veitch, Sir Jeremiah Colman, and Messrs. J. O'Brien, J. C. Charlesworth, W. H. Hatcher, J. E. Shill, A. Dye, W. H. White, Gurney Wilson, de B. Crawshay, F. J. Hanbury, R. G. Thwaites, F. Sander, T. Armstrong and C. J. Lucas.

Some choice species were shown in a small but interesting group by Messrs. Charlesworth and Co., Hayward's Heath. *Brassavola digbyana*, *Habenaria Susanæ* and *Stanhopea oculata* were among the gems of this collection. Silver Banksian medal.

Mr. E. H. Davidson, Borlases, Twyford, sent a little group containing some capital plants of *Odontoglossums* and a handsome plant of *Vanda sanderiana*. Silver Banksian medal.

Mr. H. T. Pitt, Rosslyn, Stamford Hill, N., sent an interesting group of hybrid *Cattleyas* and *Odontiodas*. Plants of botanical interest, such as *Bulbophyllum barbigerrum* and *Chondrorhyncha Chestertonii* were also included. Silver Flora medal.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, staged a bright and effective group comprising *Cattleya gigas*, *C. Harrisonæ*, *Dendrobium Deari*, *Vanda cærulea*, *Oncidium* in variety, and plants of the pure white *Miltonias lambeauiana* and *Queen Alexandra*. Silver Flora medal.

Messrs. J. and A. McBean were represented by a small group of *Cattleyas*, *Odontoglossums* and *Miltonias*. The plants were admirably grown; but interest in this group would have been enhanced if each variety had been clearly labelled. Silver Banksian medal.

FRUIT AND VEGETABLE COMMITTEE.

Present: Owen Thomas, Esq. (chairman), Messrs. Edwin Beckett, J. Willard, W. Pope, A. R. Allan, A. Bullock, A. Grubb, J. Jaques, J. Harrison and J. G. Fowler.

The collection of vegetables shown by the Westminster City Gardeners came in for general admiration, and reflected the highest credit upon the Church Army, who were responsible for the cultivation of the produce shown. The collection was a comprehensive one, containing vegetables grown off three different plots in Westminster. The Carrots and Red Cabbage from Stillington Street Garden No. 1, Cabbages, Marrows and Beetroots from Stillington Street Garden No. 2, and root crops and Beans from Elverton Street were all worthy of the highest praise. Silver Knightian medal.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), and Messrs. C. T. Druery, E. A. Bowles, J. Green, R. C. Notcutt, W. J. Bean, R. Hooper Pearson, C. R. Fielder, J. F. McLeod, F. Herbert Chapman, C. Blick, J. T. Bennett-Poe, J. Jennings, C. Dixon, H. J. Jones, C. E. Pearson, W. P. Thomson, E. H. Jenkins, W. Cuthbertson, J. Hudson and C. J. Lucas.

Messrs. James Veitch and Sons, Limited, displayed a full table of greenhouse flowering plants, the chief of which were *Cannas* and the hybrid *Javanico-jasminiflorum* *Rhododendrons*. These latter are a very beautiful, ever-flowering race of plants, and as such worthy of extended culture. Some distinct sorts are luteo-roseum *carminatum javanicum* (apricot), *Souv. de J. H. Mangles* (salmon orange), *King Edward VII.* (chrome yellow), *Purity* (white), *Clorinda* (rose, shaded red), and *Epirus* (buff, shaded red in the throat of the flower). *Exquisite* is a fine clear self yellow of great merit, and *Indian*, yellow salmon buff with apricot, one of the more distinct. Some fine examples of *Solanum Wendlandii* were again displayed; *Kalanchoe Flammea* gave a bright piece of colouring, while the new *Browallia viscosa*, with royal blue, white-eyed flowers, was exceedingly pretty. Great arches of trained *Fuchsias* overtopped the whole, the plants enumerated constituting panels, as it were, between. The *Cannas* were particularly bright and good, *Fraulein E. Kracht* (salmon) and *Frau M. Skopnik* (orange yellow and spotted) being among the more distinct. That charming perennial, *Thalictrum dipterocarpum*, was also noted in fine condition.

Messrs. James Kelway and Son, Langport, showed a very fine table of Gladioli, which, arranged three spikes in a vase, constituted a display of much excellence. *Duke of Edinburgh* (salmon), *Sir H. D. Woolf* (crimson and white), *Langport Favourite* (maroon crimson), *Jules Hulot* (blue), *Lady Regnart* (salmon and yellow, a very delightful combination), *Princess Maud* (crimson and carmine), *Duke of Teck* (blush white) and *Lady Muriel Digby* (yellow with crimson blotches) were all distinct. *Golden Measure* (a fine yellow) was, perhaps, the most handsome of all; while the pretty "Lang-Prim" hybrids (*G. gandavensis* and *G. Kelwayi* × *G. primulinus*) were most interesting and beautiful. *Spiræa Aitchisonii* and *Tamarix hispida æstivalis* were also well displayed.

Messrs. H. B. May and Sons, Edmonton, had a table of Ferns with blocks of *Campanula isophylla* forms in variety. Many good Ferns made an agreeable setting, the *Glory Fern*, *Adiantum farleyense gloriosum*, and many *Nephrolepis* being noted among them.

Mr. Maurice Prichard, Christchurch, Hants, had a particularly bright, fresh-looking group, which embraced the finest of the herbaceous Phloxes, choice Gladioli, *Montbretias* and other plants. *Crinum Powellii* and *C. P. album* were seen in excellent examples, while the ever-charming *Gladiolus primulinus* and its hybrids were quite a feature. Quite good and distinct, too, was a group of

plants of the new *Lysimachia Henryi*, whose procumbent tufts were freely laden with erect yellow flowers. It is in every way a good plant for the summer rock garden. Phloxes were admirably shown, *Frau Ant. Buchner* and *Fraulein Von Lassberg* being two of the finest whites. *Gruppen Konigin* is a real good pink. Dr. Charcot and *Le Mahdi* were best among blue shades. An unusual plant in Mr. Prichard's group was *Antholyza paniculata*, with tubular scarlet-crimson flowers.

Messrs. W. Cutbush and Sons, Highgate, N., staged some fine vases of Carnations, of which the finest were *Countess of Lathom* (crimson), *Edna* (heliotrope), *Mikado* (also of this shade, but deeper), *Miss Winnie Hey* (a yellow-ground fancy perpetual), *Lord Rothschild* (crimson) and *Mrs. McKinnon* (scarlet), whose powerful fragrance should commend it to all. It is handsome withal, and of a rich scarlet colour.

Messrs. W. Wells and Co., Merstham, showed vases and stands of Phloxes, such as *Eclairmonde* (blue), *Elizabeth Campbell* (pink), *Distinction* (blue and white), *La Prophete* (lilac), *King Edward* (scarlet), *Rose Queen* (very fine) and *Le Mahdi* all being good and distinct.

Mr. James Box, Lindfield, had a superb bank of Phloxes, splendidly arranged. Such fine things as *Lindfield Beauty* (pink and white, a most charming sort), *G. A. Stroblein* (scarlet), *F. V. Lassberg* (white), *Sheriff Ivory* (pink, crimson eye), *Frau A. Buchner* (grand white), *Rignstroom* (an improved Pantheon, of light scarlet shade) and *Le Mahdi* were all superb.

Messrs. Webb and Brand, Saffron Walden, staged their well-known strains of Hollyhocks in many shades of colour, white, cream, rose, buff, salmon and yellow being noted.

A collection of Sweet Peas, good and fresh-looking, came from Messrs. Aldersey and Marsden Jones, Malpas, Cheshire, Tortoiseshell, a fine orange, being one of the best.

Mr. G. Reuthe, Keston, Kent, had an interesting group of things, including *Campanula Stansfieldii*, *C. Tymosii*, *C. Zoyzii*, *Gentiana Frœlichii*, *Pelargonium endlicherianum*, *Romneya Coulteri*, *Desfontainæa spinosa* and *Feijoa sellowiana*, whose crimson filaments and gold-tipped anthers render it as distinct as it is charming. *Veratrum nigrum* and *Asclepias tuberosa* were also noted.

Messrs. H. Cannell and Sons, Swanley, showed a particularly fine bank of *Cannas* and *Begonias*, the former chiefly of crimson, yellow and orange shades in great variety, the latter in white, yellow, pink, orange and crimson shades. *Vesuvius*, crimson, was very fine. *Celestial*, a variegated flower of scarlet and white, was most striking, while *King of Yellows* and *Polar Star* were both notable and good; *Lobelia Blue Bees*, a trailing kind, with deep blue, white-eyed flowers; and *Dracocephalum Forresterii*.

Messrs. H. J. Jones, Limited, Lewisham, showed a capital group of Phloxes, of which *Elizabeth Campbell* (pink), *Sheriff Ivory*, *G. A. Stroblein* (scarlet), *Gruppen Konigin* (lilac), *Baron Von Dedem* (scarlet) and *Antoine Mercier* were all good.

Messrs. F. V. Van Zanten, Hillegom, showed *Gladiolus Glory of Noordwyk* (a fine yellow), *Liberfeur* (brilliant scarlet self), *Empress of India* (almost black) and *Sulphur King* in a large collection. *Badenia* (mauve blue) was also fine.

Messrs. G. Zeestrallen and Sons, Holland, also showed *Badenia* very finely. *Firmer P. Vos*, Mz. Sassenheim, Holland, also contributed these flowers in variety.

Messrs. T. S. Ware, Limited, Feltham, had a particularly good table of Pentstemons and Phloxes, the former including *Fire Dragon* (scarlet, white throat), *Salamander* (rich scarlet, white throat), *Arethusa* (purple and white), *Cuina* (fine scarlet), *Diamond* (crimson and white), *Lady Hallé* (pink and white), *Sylvianne* (blue, mauve and white), *Taurus* and *Zainor* (almost maroon). *Amenaide* (white, touched with pink) is very charming.

Messrs. Stuart Low and Co., Enfield, showed *Clethra arborea* in well-flowered examples, also Carnations of the Perpetual-flowering class.

The Guildford Hardy Plant Nursery had a variety of showy herbaceous things—Pentstemons, Phloxes, white Lavender, Larkspurs and Yuccas.

Messrs. Rich and Co., Bath, had a representative gathering of Phloxes, together with a large assortment of Pentstemons.

Seven well-flowered examples of *Hæmanthus Andromeda* (virtually a pale-flowered form of *H. Katherineæ*) were exhibited by Mr. Cory, Duffryn, St. Nicholas, Cardiff (gardener, Mr. Cobb), a very handsome plant with equally handsome leafage.

FLORAL COMMITTEE'S AWARDS.

Awards of Merit to *Lysimachia Henryi*, from Mr. Prichard, Christchurch; *Gladiolus Crown Jewel*, from Messrs. Kelway, Langport; *Begonia Decorator*, from Messrs. Cannell, Swanley; *Rhododendron Clorinda*, from Messrs. Veitch, Chelsea; *Clethra arborea*, from Messrs. Low, Enfield; *Eschscholtzia Mikado caniculata*, from Mr. W. H. Gardiner, St. Osyth; *Rose Danae*, from the Rev. J. H. Pemberton; *Astilbe simplicifolia*, from Mr. G. Reuthe, Keston; and *Hæmanthus Andromeda*, from Mr. Cory, St. Nicholas, Cardiff.

Silver-gilt Flora Medal to Messrs. Kelway, Langport, for Gladioli.

Silver-gilt Banksian Medals to Messrs. Box, Lindfield, for Phloxes; and to Messrs. Ware, Feltham, for Phloxes and Pentstemons.

Silver Flora Medals to Messrs. May, Upper Edmonton, for flowering plants and Ferns; and to Messrs. Veitch, Chelsea, for greenhouse plants.

Silver Banksian Medals to Messrs. Cannell, Swanley, for *Cannas* and *Begonias*; and to Mr. Prichard, Christchurch, for hardy plants.

Bronze Flora Medal to Messrs. Wells, Merstham, for Phloxes and Carnations.

Bronze Banksian Medals to Messrs. Aldersey and Marsden Jones, Malpas, for Sweet Peas; and to Messrs. H. J. Jones, Lewisham, for Phloxes.

WESTERN ROSE (SCOTLAND) SOCIETY'S SHOW.

THE Western Rose Society held a splendid show in the Kursaal, Gourrock, on July 27, the exhibition being opened by Mrs. Duncan Darroch. The show was an extremely fine one, and was noticeable for the quality of the Roses and Sweet Peas shown. The wealth of the former and the interest shown denote the growth of the popularity of the Rose in Scotland, where the cultivation of the flower has made notable advances within recent years. In the nurserymen's classes a notable feature was the success of the famed firm of Messrs. Hugh Dickson, Limited, Belfast, by whom the first prizes in almost all the classes of the nurserymen's section were won. Many superb blooms were shown. The leading class in this section was that for thirty-six blooms, distinct, for which the Western Cup was awarded. Here Messrs. Hugh Dickson led with a superb lot of blooms, Messrs. D. and W. Croll, Broughty Ferry, and Messrs. T. Smith and Sons, Stranraer, taking the second and third places respectively. For twenty-four blooms the same order was the result in a good class. For twelve distinct blooms, eighteen blooms of Hybrid Teas, twelve blooms of any red Rose, twelve blooms of any pink one, twelve of any other colour, twelve new Roses since 1909, and six varieties of decorative Roses, Messrs. Hugh Dickson, Limited, also won all the firsts, other firms winning prizes in these classes being Messrs. D. and W. Croll, Messrs. T. Smith and Sons, Messrs. Robertson and Co., Helensburgh, and the Killermont Nursery Company. For a prize for twenty-four blooms, Messrs. Robertson and Co. were first. In the classes for amateurs and gardeners, the leading one was that for eighteen blooms, not less than twelve varieties, and here Mr. J. Pearson came first, Mr. Conway Jones being second and Mr. P. Kenyon third. Mr. Pearson was also first for twelve. Other winners of first prizes in the same classes were Mr. Pearson, Mr. C. C. Mann and Mr. J. E. Turner, with Mr. Mann, Mr. S. Eason Simmers, Miss Harvey and Mrs. W. Stokes in the amateurs' classes. Mr. R. S. Aitkenhead had the best bloom shown by an amateur in Avoca. *Horace Vernet*, from Messrs. D. and W. Croll, was the best Hybrid Perpetual in the show, and Stewart Clark, from Messrs. Dickson, the best Hybrid Tea. Sweet Peas were very fine, Mr. J. Smellie, Busby, winning with twelve vases in twelve varieties, and six vases, with Mr. G. Bowness second and Mr. W. M'Laughlin third. Mr. G. Snodgrass won the leading prizes for amateurs. Mr. J. Smellie had the best fancy and show Pansies, Mr. A. M'Alpine taking the corresponding prizes for amateurs. The arrangements made by Mr. J. E. Turner, secretary, and the committee were excellent.

The Forthcoming Gladiolus Show.—The second summer show of the National Gladiolus Society is to be held at the Royal Horticultural Society's Hall on Tuesday, August 13. A number of prizes, including a silver trophy and a silver cup, are offered for competition. Full particulars of the classes may be obtained from the hon. secretary, The Flagstaff, Locksheath, Southampton.

School Teachers and Gardening.—From the report of the Royal Horticultural Society's examination of school teachers in cottage and allotment gardening we learn that 1,089 candidates entered for the examination, and of them 106 obtained first class, 702 second class, and 209 third class. There is a touch of humour in the following extracts taken from the examiners' report. The questions on vegetable cultivation, especially, produced very practical answers, and were awarded correspondingly high marks. It is, however, surprising that so many candidates would make up a *hot-bed* with *well-rotted* manure. Perhaps the commonest mistakes were in saying that a plant is variegated because it does not receive sufficient carbon dioxide; that hoeing "fills up the capillary tubes"; and that the cabbage white butterfly pupates in the soil. Want of *practical* knowledge was very apparent where Cyclamen, Lobelia and Snapdragon were given as subjects suitable for training on a cottage wall! Such errors result in mistakes in cultivation if an attempt is made to apply them.

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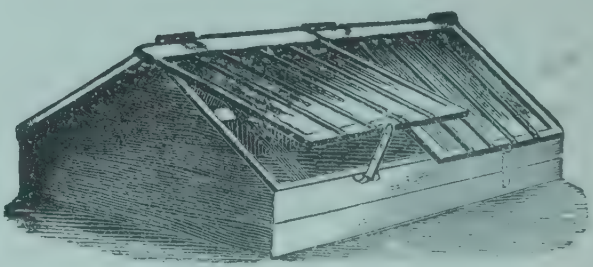
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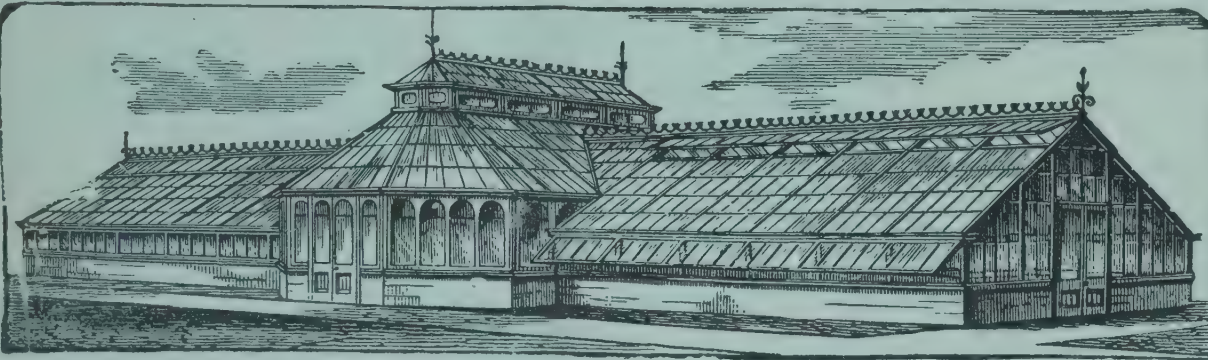
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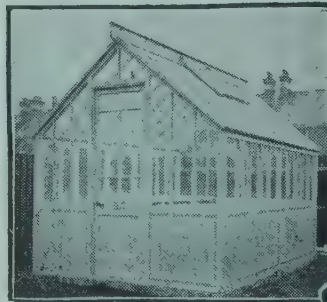
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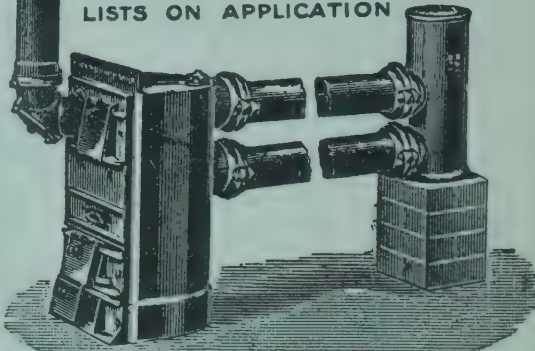
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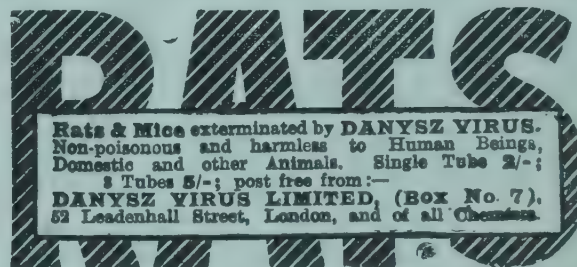
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THE GARDEN.

No. 2125.—Vol. LXXVI.

AUGUST 10, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

*The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden W.C.

NOTES OF THE WEEK.

The Indian Bean Tree.—This very ornamental tree, botanically known as *Catalpa bignonioides*, is flowering with remarkable freedom this season. It is a very accommodating tree, flourishing in almost any soil, and even thriving in the smoke-laden atmosphere of large towns. It is, however, seen to the best advantage as an isolated specimen on a lawn. The flowers are followed by long, Bean-like pods, which give this tree the popular name of Indian Bean.

Camellias Fruiting in the Open.—The beautiful grounds of Lady Tress Barry at St. Leonard's Hill, Windsor, have long been noted for their Camellias. Here may be seen hedges and dells of Camellias, and healthy specimens from 15 feet to 20 feet in height. The Camellia is as hardy as the Laurel, and by way of proving its hardiness, many of the trees are now bearing fruits about the size of Walnuts. If the fruits are allowed to remain, the seed will ripen. In fact, self-sown Camellias abound in the gardens at St. Leonard's Hill.

The Cumberland Lodge Vine.—The famous old Vine at Cumberland Lodge, Windsor Park, is again carrying a handsome crop of berries. It is not generally known that this Vine is much larger than the one at Hampton Court. Both are of the same variety, namely, Black Hamburgh, and it is hard to say which is the older of the two. The vinery at Cumberland Lodge is a three-quarter span 138 feet in length. The Vine completely fills this large house, although it is doubtful if it could extend much further, as on hot days the branches furthest from the main stem are inclined to flag. The bunches have been reduced in number, but even now this veteran Vine is carrying 400 bunches of excellent quality.

Treating Hard Seeds with Sulphuric Acid.—In America and other countries where exceptional heat and drought are often experienced just prior to harvesting seeds, it is found that many of the leguminous plants, such as Clover and Melilotus, fail to germinate when sown, presumably on account of the hardness of the outer coating of the seed. The same difficulty has presented itself in this country during recent years among certain varieties of Sweet Peas, especially when the seed has been grown in California. Bulletin No. 312, recently issued from the Cornell University, New York State, is devoted to the results obtained by treating various leguminous seeds, as well as seed of Cotton, with concentrated sulphuric acid or commercial sulphuric acid of about 1.84 specific gravity. The best results were obtained by immersing the seed in the acid for about ten minutes, subsequently washing it with clean water, and either allowing it to dry or sowing it at once. The results obtained in all cases were remarkable, the acid

treated seed giving a much larger percentage of germination than the untreated. We presume that anyone interested in the subject could obtain the Bulletin by applying to the Cornell University.

A Beautiful Annual for Edging.—One of the most beautiful and pleasing of the annual flowers that we have in our garden just now is *Leptosiphon densiflorus hybridus*. A foot-wide edging skirts a pathway for some yards, and whenever the sun is shining the plants are studded with myriads of small, star-like flowers—jewels the ladies call them. These comprise a number of pleasing art shades that are not to be found in any other hardy flower. The plants are about nine inches high. The seeds were sown in the open, where the plants are now growing, early in April. As an annual for edging this little plant is unsurpassed, and it is difficult to understand why it is not more extensively grown.

Vegetables on Waste Land.—One of the most interesting exhibits at the Royal Horticultural Society's meeting on Tuesday of last week was composed of three collections of vegetables that had been grown in the Church Army City Gardens, Stillington Street, Westminster. These gardens three years ago were builders' waste, yet the produce exhibited was, for the greater part, of excellent quality. Indeed, we have never seen better Shorthorn Carrots, red and white Cabbages and garden Kohl Rabi at any local country show. We subsequently had an opportunity of inspecting the plots where the vegetables, as well as flowers, were growing, and were much impressed with the cleanliness and excellence of the whole, as well as the great variety that is being grown. This cultivation of waste spaces is a most praiseworthy movement, and the condition of the plots under notice reflects the greatest credit on the men, also on those who undertake the work of supervision.

Nelumbium Flowers from the East.—When passing through Covent Garden one day last week, we saw, with no little surprise, about a score of the stately blooms of *Nelumbium speciosum*, beautifully arranged in a large decorative basket. The flowers were in the possession of Mr. R. F. Felton, florist, of Hanover Square, who informed us that they had been sent direct from the East over a distance of 2,000 miles, and had taken five days in transit. The flowers are like those of a gorgeous pink Water Lily, borne on long stalks. The largest flower measured 11½ inches across, and the basket of blooms was 5 feet in diameter. The flowers are said to remain fresh for ten days or a fortnight, and for decorative effect and grandeur of individual blooms they are unrivalled. This basket, which is the first of several consignments to be sent, has, we learn, been presented to the Queen. *Nelumbium speciosum* is the Sacred Egyptian Bean, and from the most remote periods has been regarded as the emblem of fertility.

CORRESPONDENCE.

The Editor is not responsible for the opinions expressed by correspondents.)

A Good Culinary Pea.—We have this year grown a Pea called Veitch's Prestige, and it has done so excellently that I pen these few words in its favour. The pods are handsome in form, and many carry nine Peas in them. The flavour is superior. Its haulm is very robust, and I should think the striking appearance of the pods would render it suitable for the show table. Its height is given as 3½ feet, but on our strong soil it is rather more.—C. TURNER, *Ken View, Highgate.*

Roses General Macarthur and Richmond.—It was the writer's good fortune recently (July 27) to look round the beautiful grounds of St. Leonard's Hill, Windsor, and while doing so I was shown some remarkable examples of General Macarthur and Richmond Roses. Of these varieties they were the best I had ever seen, particularly of the former. The plants were so unusually healthy and strong and plentifully budded—one growth actually carrying a flower-head of thirty-four buds. Mr. Brown, the head-gardener, said General Macarthur was, with him, by far the better Rose of the two, being equally good for early and late flowering, also most useful for cutting purposes. I suppose this marked difference in its floral behaviour, profuseness in some districts and slackness in others, must be due largely, if not entirely, to a difference in the soils.—C. T.

Exhibiting Carnations.—I have read with much interest, during the last few months, the correspondence re the "dressing" of Daffodils at shows, and should now like to ask your readers' opinion as to the showing of Carnations. Last week, for a local show, I set up a nice lot of Douglas' Carnations, all fair blooms and shown as grown, with their own foliage, in vases, as I always show them. The only other exhibit was a collection of somewhat indifferent blooms, "fluffed" out and shown with paper collars on a board. This collection was awarded first prize, and during the afternoon I asked the judge if I had lost first prize owing to my setting up, and he practically acknowledged it and said that mine were the better blooms. Now, surely this is all wrong, and I would appeal to all compilers of schedules to insert below Carnation classes a footnote, such as "To be shown as grown" or "Manipulation of the calyx will disqualify." We have this in our Carnation classes in the Devon Daffodil Society. I am quite sure I shall have Mr. W. A. Watts' sympathy in this matter. What rule has the National Carnation Society on this point?—STRODE.
[The National Carnation Society provides classes for flowers shown on boards and others for flowers shown as grown.—ED.]

Crocus cilicicus at Newry.—The first flower of this species opened on the last day of July, thus showing it to be the first Crocus to flower, and also adding one to our list of blue flowers, of which we never have too many.—T. SMITH, *Newry.*

Campanula Zoysii.—Our gardens just now are abloom with Campanulas, but there is none prettier than C. Zoysii, one of the dwarfest and quaintest of the race. It is a dainty little light blue gem with a curiously-constricted neck. Some people find C. Zoysii difficult to

next it on my pergola, is cut every year by the cold winds. I have found the Tea Rambler the healthiest of them all, and this year, in spite of a good deal of drought, it has made enormous growths, 12 feet and more long. It is charming in colour and so sweet-scented, and I quite agree with "A." (page 386, August 3) in admiring its handsome foliage.—ESSEX READER.

Hydrangea in a London Garden.—The value of Hydrangea Hortensia for gardens in London and other large cities is well demonstrated by the accompanying illustration, which represents a fine specimen growing in Mrs. Batter's garden at Sarsfield Road, Balham, London, S.W. Mrs. Batter writes: "My Hydrangea is 7 feet 4 inches high and has over two hundred flower-heads. Most of them measure 24 inches in circumference. It faces south-west and requires protecting from frost. I find that it likes plenty of water, and I give it weak doses of Clay's Fertilizer twice a week."



A WELL-GROWN HYDRANGEA IN A LONDON GARDEN.

grow, but with me it flowers well grown in leaf-soil and loam with full south exposure, and does as well in the moraine as in the open border.. It is a plant I like very much.—B., *Weybridge.*

Rose Conrad F. Meyer.—I was asked to say (page 350, July 13) whether I had given my bushes of Conrad F. Meyer any special treatment. They were planted in a new border dug out of old pasture-land, and beyond digging in some manure when the border was made, they have had nothing further done for them. I have done no pruning beyond cutting out a few of the older growths every year, and have let them run up 10 feet to 12 feet high. The border faces east, and they are well protected from the North by higher shrubs.

Rose Tea Rambler.—I have never had this Rose cut by frost, though my garden is very exposed, and the climbing Rose Rêve d'Or, which grows

other gardens, so that it is not surprising to find some scepticism expressed regarding the alleged superiority of Lady Gay. I must say, however, that in my own garden Lady Gay is proving all that has been claimed for it, and this induces one to think that the different experiences must be a question of soil or position. In my garden, in practically the same district as the garden mentioned at the beginning of this note, Lady Gay is superb, giving just as free growth as Dorothy Perkins, and larger flowers more numerous borne and slightly deeper in colour than Dorothy Perkins. Here it is in a sheltered, somewhat cool spot, and the best plants are covering an arch. I surmise that in the gardens where Lady Gay does not thrive so well it has a warmer position than is good for it. I do not pretend to assert that this is the cause of the differences which are evident, but others may have something to say on the point which could help to elucidate it.—SUB ROSA.

Laburnum alpinum.—It is extraordinary, to my mind, how comparatively little *Laburnum alpinum* is grown, as it is far in advance of the common *Laburnum*. This probably happens because it is little known. I find it grows taller and flowers more abundantly than the ordinary form, while its long, pendent racemes of flowers are very graceful, reminding one of *Wistaria multijuga* in shape and length of raceme. The true Scotch form should be obtained from a reliable firm of nurserymen.—B., Weybridge.

The Indian Horse Chestnut.—In reference to the interesting note on *Æsculus indica* published in the issue of July 27, page 376, I look upon this tree as one of the most ornamental Chestnuts in cultivation. I am sending a photograph, showing a raceme of daintily-coloured flowers above the shining green foliage, which was taken from a tree in a Surrey garden in June of the present year. It is a great pity that it is a little less hardy than the majority of the Chestnut family, but in the Southern Counties, at all events, it appears to grow well, as is evidenced by the trees at Barton in Suffolk, which are between sixty feet and seventy feet in height. It is a native of the Western Himalaya, where travellers say it is found growing at an elevation of 8,000 feet to 10,000 feet.—SPARTAN.

A Useful Cool-House Orchid.—The genus *Oncidium* contains many fine species, but *O. macranthum* is undoubtedly among the best, and a strong point in its favour for an amateur is that it will thrive in the cool-house among the *Odontoglossums*. The leaves are from 15 inches to 20 inches long, and the scapes sometimes reach a great length, while these are occasionally branched. Some growers train them along the roof, but the usual plan is to place three or four stakes in the pot and carefully tie the spike round. A charming effect is thus produced. Each flower is large, chiefly yellow, shading to olive brown, with a tinge of violet purple on the lip. The cultural details are simple. Always keep the compost in a sweet condition, and when it is deemed necessary to repot a specimen, the spike should be pinched out to give the plant a chance to recuperate. Otherwise it needs the same treatment as *Odontoglossum crispum*.—S.

FORTHCOMING EVENTS.

August 12.—United Horticultural Benefit and Provident Society's Committee Meeting.

August 13.—Royal Horticultural Society's Meeting and Exhibition of Gladioli. Lecture at 3 p.m. by Mr. Pulham on "The Construction of the Wisley Rock Garden." Clay Cross Flower Show.

August 14.—East Anglian Horticultural Club Meeting. Exmouth Show (two days).

August 15.—Malton Flower Show. Blairgowrie Flower Show. Wylam Flower Show. Capel Flower Show. Merthyr Tydvil Show.

August 17.—Urmston Horticultural and Poultry Show. Burnley Flower Show. Seascale and Lake District Flower Show.

August 21.—Shrewsbury Flower Show (two days)

TREES AND SHRUBS.

THE PROPAGATION OF SHRUBS FROM CUTTINGS.

ALTHOUGH the propagation of some kinds of shrubs from cuttings offers no difficulties to those who have an insight into the elementary details of propagation, there are others which require a more intimate knowledge of their peculiarities before they may be increased with any degree of success; therefore in the ensuing notes attention is directed to a few points worthy of consideration by the beginner. As a rule, July, August and early September are the best months in which to take

sieve. For the other mixture three parts of fibrous loam, one part of leaf-mould and one part of silver sand are necessary. As in the other case, some must be left rough and the remainder be passed through a sieve.

Clean pots are in either case a necessity, and ample drainage is required. As a rule, the latter may be obtained by filling the pots one-third with clean crocks. Over these place some rough material, then the coarser soil, and fill up to within a third of an inch of the top with fine soil. Over the whole a layer of silver sand may be placed. In each case the compost must be made firm in the pots, but in the instance of the peaty soil it must be specially firm. Pots from 3 inches to 6 inches in diameter are, as a rule, more satisfactory than either larger or smaller ones.

The convenience at the disposal of the propagator must decide where the cutting-pots are to be placed. In any case a close atmosphere is necessary, but whether this is provided by a cold or a warm frame is immaterial in some cases, for the cuttings may be expected to root as well in one as in the other, with, of course, a difference in time. There are instances, however, of cuttings which will not root in violent heat, others which object to artificial heat of any kind, and others, again, which root better if given a fair amount of artificial heat.

The Right Kind of Cutting to Select.—

It is only by actual experience that one is able to decide when the cuttings are in the best condition for rooting quickly. As a rule, young shoots are in the best stage for rooting when they are becoming a little firm, especially when a fair amount of heat can be given. For those that require cold-frame treatment entirely, the cuttings are usually more satisfactory if allowed to become somewhat more firm. As early as the third week in May short shoots of *Diervillas*, *Forsythias* and *Philadelphuses* may be taken. At that time they may be placed in a warm propagating-case or in a hot-bed, and will root within a fortnight. If, however, cuttings of the same shrubs are left until the end of July, they take a long time to root, and do not start away so vigorously as those taken at an earlier date. June and July, however, may be accepted as suitable months for *Spiræas*, *Prunus triloba*, *P. japonica* fl.-pl., *Escalonnias*, *Kerria japonica*, species of *Rose*, *Laurels*, *Aucubas*, *Tree Ivies*, *Olearias*, *Cornus Spaethii*, *Viburnums*, *Honeysuckles*, &c. July and August are the best months for *Heaths*, *Rhododendrons* and kindred shrubs. As a rule, cuttings 4 inches to 5 inches long are more satisfactory than longer ones; but in the case of members of the *Erica* family they must be shorter, and in



THE INDIAN HORSE CHESTNUT (*ÆSCULUS INDICA*).

cuttings, although even May and June are not too early for some kinds.

Generally speaking, two kinds of soil are sufficient for most shrubs—that in which peat predominates for one kind, and that where loam forms the principal part for the other kind. In each instance a fair amount of sand is necessary, and the two composts may be formed as follows: Take two parts of good peat and mix with it one part of silver sand. Leave some of the compost in a roughly-broken condition and pass the other through a half-inch meshed

the case of the various *Heaths* they are made, as a rule, from 1 inch to 1½ inches long. With such delicate cuttings as *Heaths* great care must be taken in trimming the leaves away from the lower parts, for if the bark is injured in any way, the chances of rooting are diminished. Although it is not possible to give any hard-and-fast rule for the depth to which the cuttings must be inserted in the soil, a good average may be suggested as one-third the depth of the cutting. It is very important, however, that the bases of

the cuttings should fit firmly on the soil and that they should not be left in a condition which is popularly known as being "hung," that is, secured near the surface of the soil and left loose below. Full use must be made of the outer margin of the pots when inserting cuttings, for those in that position root more quickly than others nearer the centres of the pots. As soon as inserted a thorough watering must be given, and the pots must be placed in the positions where they are to remain until the cuttings are rooted. A warm propagating-case or hot-bed of manure will suffice for warmth-loving subjects. Plunge the pots in Cocoanut fibre, for that helps to keep the soil moist without over-watering. Cases and frames must be kept close, and in the case of Heath cuttings a bell-glass placed over each pot will do good.

Cuttings to be placed in cold frames are best dibbled into the soil of the frame. Two subjects which root well in cold frames, but are a failure in heat, are *Berberis stenophylla* and the double-flowered Gorse. Other things which may be placed in the same frame are Brooms, conifers such as variegated Yews, varieties of *Cupressus lawsoniana*, *pisifera* and *obtusata*, varieties of *Thuya*, &c. Hollies may also be rooted in such a frame. Give a good watering when the cuttings are inserted, and keep the frame close and shaded from bright sun. Very little subsequent watering will be necessary, but the cuttings must not be disturbed until the following April. As the cuttings begin to form roots, the cases or frames may be gradually ventilated until the young plants are hard enough to remove, when they may be placed in a cold frame for the winter.

CEANOTHUS AZUREUS GLOIRE DE VERSAILLES.

ANY reader requiring to cover a south wall should try *Ceanothus azureus* Gloire de Versailles. *Ceanothuses* have been flowering profusely this summer, possibly from the ripening they received last year. None has been more beautiful than *C. azureus* Gloire de Versailles, which has been, with me, a sheet of bloom for weeks past. As the plant shown in the illustration had encroached over the bed in which it is growing, I cut it back in March last, with fear and trembling that doing so might injure the flowering this season; but to my joy I found my fears were not justified. I do not protect this plant or the one on a north-west wall, but I find that the one with a south aspect always produces much more flower than the other. It does not appear to be fastidious as to soil, although I presume it would not thrive in heavy clay, unless coarse sand and thorough drainage were provided. As will be seen in the illustration, it flowers very freely indeed, and is certainly one of the best of our hardy shrubs that bloom during the summer, when blue flowers of any kind are none too plentiful.

Weybridge.

B.

THE ROSE GARDEN.

ROSES WITH BAD HABITS.

(Continued from page 379.)

Mrs. R. G. Sharman Crawford, exquisitely beautiful in colour, is terribly addicted to mildew, and unless checked will soon taint all the Roses in its neighbourhood. Now that we have a plethora of pink Roses, I know of many growers who are discarding the old favourite.

General Macarthur should not receive a bad word perhaps from the writer, who has on so many occasions recommended its culture, but one cannot be blind to the fact that the full blooms are very

enough to find it a success. If any reader has succeeded in maintaining this Rose in a vigorous state for some years, I should be pleased to hear of his method; but with me it seems to dwindle away with a sort of sleeping sickness. It seems a very unfortunate fact that both with Mrs. Edward Mawley and the more recent

Edward Mawley there should be bad points to chronicle, and I very reluctantly do so, knowing that these two ardent rosarians are held in such high esteem by the whole Rose-loving public. But, of course, they are not responsible for the bad habits of their namesakes. Incidentally, I may mention that a reporter of one of the Belfast papers, in reporting the recent National Rose Society's Show, was perhaps slightly anticipating events when he alluded to our friend as "Sir Edward Morley," for who can say but that this honour has been richly earned, whether it is ever bestowed or not! Now as regards the Rose, it has been very disappointing to most of us. It "blues" terribly, and if there is one good scarlet-crimson bloom out on a dozen plants, the others are all of a violet blue shade, and exceedingly thin also. Possibly in autumn it may be grand, for I cut a fine bloom yesterday.

Horace Vernet has been seen very fine this year, but amateurs who are not "in the know" should be careful how they order this Rose, for it will almost certainly disappoint them as a "cut-back" flower, and unless one is prepared to bud some stocks each year, my advice would be to leave the Rose alone.

Medea is a Rose we may sometimes see looking splendid in a box of Teas, but has anyone found it to be a good Rose in the garden? Most of its flowers fail to open well, although now and then a superb bloom may be cut.

Alice Lindsell is a very uninteresting Rose on the plant. There is far too much "stuff" in it to open freely, and unless shaded the blooms "ball" badly, and if a little wet will rot rather than expand.

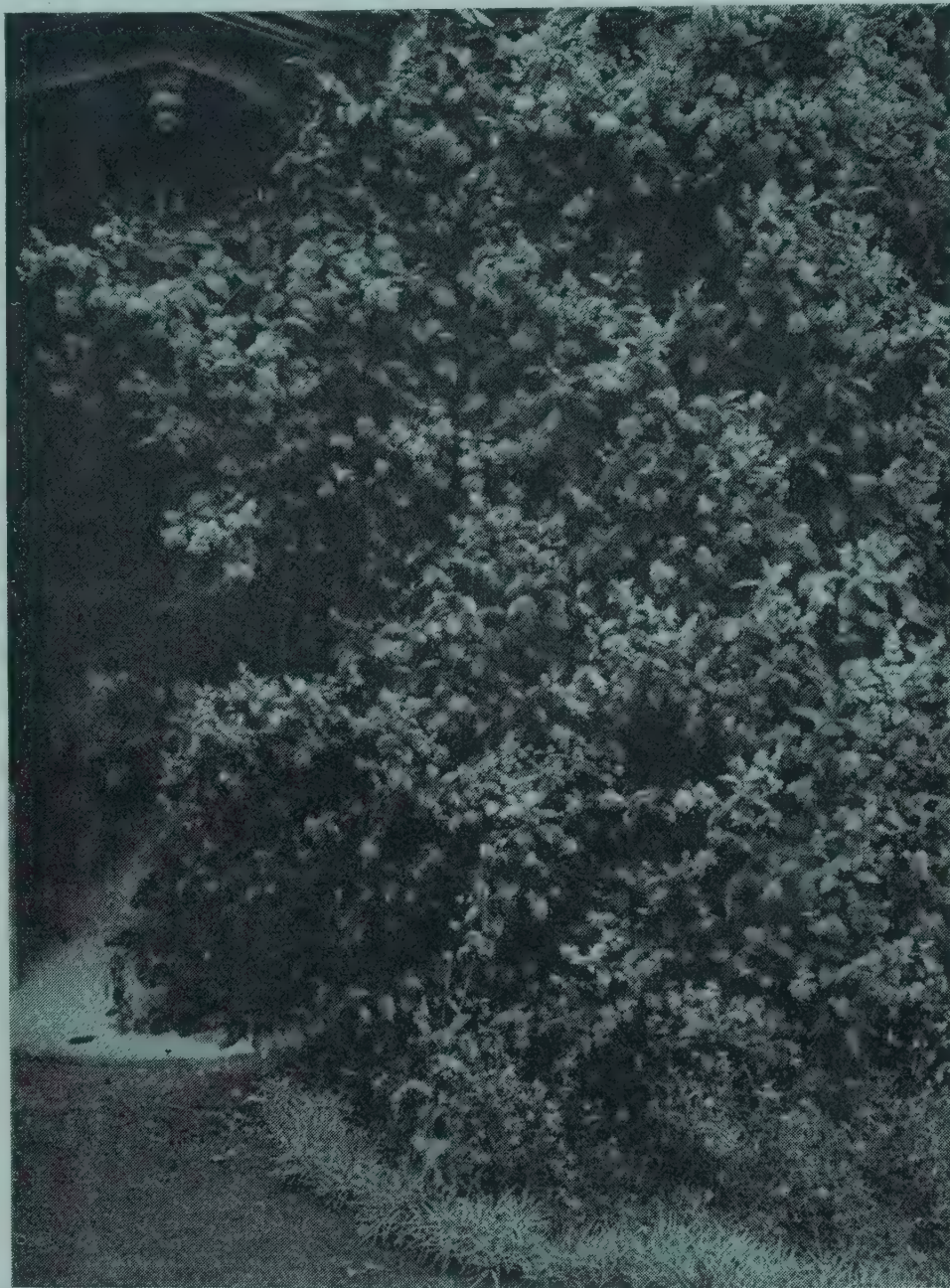
Florence Pemberton is another splendid Rose when shaded, but whose blooms come very "soiled" when left to their own devices, the petals being far too thin and papery.

Nita Weldon is a very lovely Rose in the show-box, but it hangs its head in such a dejected fashion on the plant as to be useless in the garden. (To be continued.)

ROSE MRS. DAVID JARDINE.

WHEN Messrs. A. Dickson and Sons sent out this lovely variety four years ago, I predicted that it would have a large demand as a forcing Rose, and my prediction has been fulfilled. Apart from its glorious even colour of bright rosy pink, it possesses such beauty of form and fine stems as to render it one of the handsomest of the Hybrid Teas, and its strong fragrance will commend it to all who can fully appreciate this delightful attribute.

P.



CEANOTHUS AZUREUS GLOIRE DE VERSAILLES IN A WEYBRIDGE GARDEN.

flat and the colour inclined to a magenta shade, which often will mar the colour effect when the Rose is massed in a bed. I am quite ready to admit that its good points outnumber its bad, but the fact remains as stated, and I am hoping the General will soon be improved upon.

Charles J. Grahame should not have been placed among the Hybrid Teas. It is grand in colour at times, but generally woefully disappointing, the older flowers changing to a dull shade, and all are very thin.

Mrs. Edward Mawley, superb as a one year old plant from half-standards, is of little value as a cut-back; at least, I have not been fortunate

THE ROCK AND WATER GARDEN.

HARDY FERNS IN THE ROCK GARDEN.

IN gardens where a cool corner can be given up to hardy Ferns, a charming feature can be introduced at a trifling expense which will remain full of interest and beauty for the greater part of the year, and during the hot days of summer will be one of the most popular resorts in the garden. Ideal natural positions for hardy Ferns occur on many estates, but the West and South-West Counties and many parts of Northern England and Scotland are peculiarly adapted for the purpose, as thereabouts the atmosphere is moist, and numerous shady, rocky glens or valleys are to be found in which waterfalls sometimes occur and rock-strewn streams wind their way, causing the surrounding ground and atmosphere to be constantly moist and cool. Where these favourable conditions do not exist, however, it is often possible to introduce them without any serious trouble, and when a rock garden is being made a portion can easily be so arranged that it will form an ideal home for Ferns.

In Conjunction with the Rock Garden.—Shady places sometimes occur in a scheme of rock gardening, and such places are not fit for sun-loving alpine plants, yet they form good positions for Ferns, especially if water can be introduced in such a manner that it trickles over and between rocks, forming here and there miniature waterfalls, beside which are cool recesses or caves for the accommodation of such a moisture-loving subject as the Killarney Fern, which likes to have its leaves in a constantly moisture-laden condition. In fact, there are very few districts where a collection of hardy Ferns may not be grown, although the number of kinds which should be planted depends entirely on the locality. In Cornwall, for instance, the owner of a garden can select from a much wider field than he whose garden is situated in a less favourable climate.

Kinds to Grow.—The Australian Tree Fern (*Dicksonia antarctica*) is considered a hardy plant in Cornwall, and even in some gardens on the West Coast of Scotland it stands uninjured; but in most parts of the country it would be a distinct failure planted anywhere but under glass. Where it is grown, however, it adds an air of distinction to the garden, for its brown stems standing high above low-growing kinds are distinctly pleasing, while the heads of large fronds allow sufficient light to filter through to supply the requirements of any undergrowth. Other exotic Ferns may be grown with this Tree Fern, one notable kind being *Lomaria procera*, whose dark green vigorous fronds are always pleasing. Without these semi-tender kinds there are many British species and several exotics, all of which are quite hardy and amenable to cultivation, they may be grown in almost any place where the soil is suitable and moist conditions prevail.

The Royal Fern (*Osmunda regalis*) always finds admirers, for its large and stately fronds, which may be from 4 feet to 6 feet in height, are certainly the most conspicuous among British species. It appears to rejoice in light ground, standing just clear of a stream, where the roots can enter the water. *Scolopendrium vulgare* (the Hart's-tongue Fern) is another popular kind which should be well represented in the hardy fernery. It has hosts of varieties, many of which are very prettily crested. There is no need, however, to obtain a collection of the fancy named sorts, for the type is quite as useful for ordinary purposes, and nothing more effective can be desired than the manner in which this plant furnishes roadsides, banks of streams and walls in Devonshire and Cornwall. The Hard Fern (*Lomaria Spicant*) is another charming species which is found in moist woods, walls and heathland all over the country, even at a considerable elevation. Vigorous

divided into linear segments, are found clothing many an old wall, bank or tree branch. For crevices between rocks it is well adapted, for it thrives where soil is scarce, providing moisture is plentiful. One of the finest effects made by this Fern which has come under the writer's notice is in the gardens at Mount Edgcumbe, for there the branches of a number of trees are literally covered with the species.

The Hardy British Maidenhair (*Adiantum Capillus-Veneris*) may be planted in chinks between rocks where it can obtain plenty of moisture, its popularity and beauty entitling it to a trial wherever a hardy fernery is formed. *Adiantum pedatum*, a native of North America, is another Maidenhair which may be cultivated out of doors. As it grows from 9 inches to 15 inches high, a well-grown plant is a conspicuous object. The Irish form of *Trichomanes radicans* may be



HART'S-TONGUE AND OTHER FERNS IN THE ROCK GARDEN.

examples have their narrow fronds upwards of a foot in length, but in other places they scarcely attain a length of 6 inches. It is excellent for planting about the banks of a stream, among rocks or in other places, and looks well either in small or large patches. *L. alpina* is a good companion plant.

In mountainous districts in Scotland, Wales and various parts of England the pretty little Parsley Fern (*Cryptogramme crispa*) is to be found, and patches of this ought certainly to be planted in the hardy fernery. The short fronds are made up of small delicate segments, and are very attractive. A moist position among broken rock suits it. The Oak Fern (*Polypodium Dryopteris*) is another charming little Fern which is found wild in many parts of the country. It thrives admirably in light, moist ground, and is a general favourite. *Polypodium vulgare* is well known in some parts of the country, for its narrow leaves,

grown in a shaded place where it will be constantly covered with moisture, but it must on no account be exposed to sun or drying winds. Then there are *Aspidium aculeatum*, *A. angulare*, *Asplenium Filix-femina* and *Nephrodium Mas*, all with hosts of varieties, which alone would furnish a large fernery, which can be utilised, in addition to such species as *Asplenium Ceterach*, *A. Adiantum-nigrum*, *A. Trichomanes*, *Nephrodium spinulosum* and others. Such allies as *Lycopodium clavatum*, *L. annotinum*, *L. complanatum* and *L. Selago* might well be introduced in the cooler parts of the country, while *Selaginella selaginoides* may be grown in many places and *S. kraussiana* in the warmer parts of the country.

In most cases it would be a mistake to include the Bracken, for it is a most difficult plant to keep within bounds, and there would be a danger of its crowding out choicer subjects. People who have the convenience and do not already possess

a fernery of hardy Ferns would do well to commence the culture of these pretty plants, for they are always a source of pleasure.

L. W. P.

A YUCCA FOR THE ROCK GARDEN.

(Y. ANGUSTIFOLIA.)

THE long spell of dry, sunny weather during the summer and autumn of 1911 is probably responsible for the freedom with which Yuccas are flowering this summer. One of the rarest and most distinct of the Adam's Needles or Yuccas is *Y. angustifolia*. It is a native of Missouri, Colorado and New Mexico, and is figured in the *Botanical Magazine*, t. 2236. The Narrow-leaved Adam's Needle, as it has been appropriately named, is quite a modest plant in growth, with long, narrow leaves averaging about two feet long and three-eighths of an inch wide. The inflorescence is simple, about three feet high, the individual flowers 3 inches to 4 inches across, cream-coloured, opening in the end of June and early July. This charming Yucca is seen to the best advantage when planted in the rock garden in light, sandy loam.

FLOWER GARDEN.

SEASONABLE NOTES ON CARNATIONS.

The Flowering Season.—I hope that my experience has been similar to that of all readers of THE GARDEN this season, because, if so, they have had a most delightful time. My plants have flowered splendidly, as well in regard to profusion as to quality of size, shape and colour in individual blooms. It is not the rule in my garden to carry disbudding to the last degree, but there have been wonderfully fine flowers in threes attractively arranged on a stem. The plants have not suffered from any cause, though at one time they suddenly became the prey of myriads of green fly, of which an end was promptly made, or the cherished plants would quickly have been ruined. The "grass" was exceptionally good, and there were plenty of excellent layers.

Rooting Layers.—Growths which were cut in the orthodox manner about the middle of July are looking satisfactory from every point of view, and if the present promise is maintained, there will not be more than one or two per cent. of failures. It is necessary to keep the mound of soil pleasantly moist to encourage rooting, but care must be exercised not to make it sodden, or more harm than good is bound to follow. Leaves that commence to turn yellow may be reduced in length to remove the unsightly portion, while those that die ought to be immediately removed and burned. Loosening of the surface of the mound is desirable, but it will have to be done with the greatest care, or the layers will be disturbed and the prospects of success seriously

prejudiced. Use a small fork merely to prick into the top half-inch, or a bluntly-pointed stick to scratch it over.

Layering.—If the process of layering is not yet completed, it is necessary that it shall be finished at once, because unless the young plants are well rooted before activity ceases for the year, it is most probable that the losses during the winter months, irrespective of whether the plants are to be in the open ground or in small pots in frames, will be numerous. The later the work is done, the more care is demanded, not only in selecting

against the system is that the Carnation is a perfectly hardy plant, and that it is, consequently, wholly unnecessary to go to the trouble entailed by wintering under cover. This is all very well as far as it goes, but, unfortunately, the majority of us find that we lose some plants in the winter when they are out of doors, and it is invariably those which we were most desirous of saving; hence the advice to keep on the safe side even at the expense of a little more labour. It is well, too, to prepare the soil that is to be used for potting in advance of the actual time of use, because nothing will then have to be done except the potting. The popular mixture of soil upon which amateurs rely for so many plants answers admirably. It consists of three parts of sound, fibrous loam and one part of leaf-mould or flaky refuse manure, according to convenience, with enough sharp sand to keep it quite sweet and open. Mix the ingredients perfectly three weeks or so before the soil will be wanted, and let it lie in a heap meantime. It is wise, also, to prepare the pots and crocks, both of which ought to be scrupulously clean at the moment of use.

Plants after Flowering.

Many cultivators throw away their plants when they have flowered once, but it is not necessary that this should be done, as they will bloom splendidly the following year. It may be necessary to thin out the growths beyond that which has been done in layering, and a top-dressing of excellent soil, such as a mixture of loam and manure, ought always to be put on them.

F. R.

THE CAUCASIAN SCABIOUS.

ONE of the most ornamental and most appreciated of our hardy border flowers is the Caucasian Scabious (*Scabiosa caucasica*), which is also highly prized as a cut flower for exhibition or for the decoration of the dwelling. It is of good growth, while the long stems on which the flowers are borne increase its value for cutting. The Caucasian Scabious grows from one and a-half feet to about three feet high, according to the nature of the soil, and it usually bears a considerable number of large flowers of a pretty

lilac; the form is also highly pleasing, the broad-rayed petals going well with the florets of the disc.

The plant is rather variable in the size of bloom and in the shade of colouring, and some of the select forms are worthy of being chosen when purchasing plants. The white one, *alba*, is appreciated by many, although the colour is more creamy than pure white even when the blooms expand. They afterwards pass off to a good ivory white. The lilac and blue varieties are generally excellent, and one of the finest of these is that called *amoena*, which has soft-coloured, large flowers of much substance. Another, named



A RARE YUCCA, Y. ANGUSTIFOLIA, FLOWERING AT KEW.

the most suitable shoots, but also in making the cut in the correct place, since woodiness increases with the age of the growths. It will, therefore, in all probability be wise to strip off more leaves than in July, and to make the incision a little higher up the shoot.

Soil for Potting.—In gardens where the soil is extremely close and heavy, and particularly so when the situation of the place is low, it is excellent practice to winter the young plants in small pots in cold frames; and the same may be said of at least a portion of the stock in all places where the choicest varieties are grown. The argument

magnifica, is of even superior excellence, with truly fine flowers of the best form and of pleasing colour. In one called perfecta we have a good variety with flowers of a darker shade than those given by the majority of the plants of *S. caucasica*.

The named varieties are propagated by division, preferably in spring or when the plants have finished flowering; but as they bloom comparatively late—from August until October—spring division is the more suitable. A good stock of plants may be procured from seeds, these being sown in pots or boxes under glass in early spring and treated in the same way as other perennials. Occasionally seeds of the white variety may be obtained, and a large proportion of these will come true.

The Caucasian Scabious is hardy, and its only fault is that in some poor soils the flowers may not come perfect through the absence of one or more of the ray petals. This is a great deformity, and when such occurs the soil should be well enriched with good manure. As a border flower this plant is highly attractive when properly grown.

Dumfries.

S. ARNOTT.

ORIGIN OF SHIRLEY POPPIES AND OTHER FLOWERS.

[In Answer to a Correspondent.]

To answer all your questions fully would require a whole number of our journal. The raiser of the beautiful Shirley Poppies was the Rev. W. Wilks, the secretary of the Royal Horticultural Society. We cannot do better than give their story in his own words: "They originated in this way. In 1880 I noticed in a waste corner of my garden, abutting on the fields, a patch of the common wild Poppy of the cornfields—*Papaver Rhæas*—one solitary flower of which had a very narrow white edging to the four petals. This one flower I marked and saved the seed of it alone. Next year, out of perhaps 200 plants, I had four or five of which all the flowers were white edged. The best of these were marked and the seed saved, and so on for several years, the flowers all the while getting a larger infusion of white to tone down the red, until they arrived at quite a pale pink, and one plant absolutely pure white in the petals. I then set myself to change the black central portions of the flowers, the anthers, stigmatic surface and pollen, from black to yellow or white, and succeeded at last in obtaining a strain with petals varying from the brightest scarlet to pure white, with all shades of pink in between, and with all possible varieties of flakes and edged flowers, and having golden or white stamens, anthers, stigmatic surface and pollen, and a white base to each petal. The Shirley Poppies have thus been obtained simply by selection and elimination."

The Sweet Pea was introduced from Sicily in 1700, but its native country is not quite certain. Its numerous varieties have been obtained partly by spontaneous variation, partly by cross-breeding. The garden Pentstemons are largely derived from hybrids between *P. Cobæa* and *P. Hartwegii*, but perhaps other species have been used. They occur wild in Western North America for the most part. Petunias as we know them are the result of crossing *Petunia nyctaginiflora* and *P. violacea*, both of which occur wild in South America. So with all the other plants you mention. The wild progenitors are frequently very different from, and far less showy than, the plants as we know them in gardens, but their wild forms do occur somewhere, though it may be far distant. The history of many of our garden flowers is scattered through old florists' books and periodicals.

THE KITCHEN GARDEN.

ARTIFICIAL MANURES FOR VEGETABLES.

THERE is now no doubt that artificial manures may be economically used in market gardening, though experiment shows the advisability of not relying exclusively upon them. A dry season may upset calculations, and a full manuring with manure, costly as it is compared to the other fertilisers, is likely then to pay far better. A judicious combination seems to give the best results, but more experiment is wanted. The land at Hadlow (from which most of my knowledge is based) is on clay. However, nearly twenty years' experience at this station has clearly shown the value of the usual mineral dressings to which farmers are accustomed.

Another point gained, in some cases at any rate, is that of quality, though fast-grown green vegetables may in some cases perhaps lose in flavour. At any rate, I have noticed this when growing

THE LATEST PEAS.

THOSE who have a good alluvial soil and like dishes of Peas as late as possible will find that certain varieties are much better than others. A light, shallow soil will grow excellent early Peas if it is well enriched with manure, but for late crops it is necessary to give a deeper rooting medium and, if possible, land of a more retentive nature. Of course, late in the season it is necessary to sow a dwarf or medium grower, and there are some excellent varieties, such as Sutton's Selected Gladstone, 3 feet to 4 feet high, with remarkable vigour and one which is a splendid drought-resister. The older Gladstone Pea was, and is now, much grown for its lateness, but the Selected is superior, and there is no difficulty in having this variety well into November. When the Gladstone type of Pea has been exhibited at the late autumn shows, I have invariably noticed that the exhibitors have been successful, as the pods, though a trifle smaller than some, are so tightly packed.

The older Veitch's Autocrat, which received a first-class certificate from the Royal Horticultural



SHIRLEY POPPIES GROWING NATURALLY IN AN OPEN WOODLAND SPACE.

Spinach on a small scale with nitrate and sulphate of ammonia combined with manure. The plants were decidedly insipid, more so than adjoining material in un-manured ground.

Phosphates in the form of basic slag or superphosphate may be safely used for root crops, Cabbage of all kinds, including Cauliflower and Broccoli, and, in fact, generally, as it is the next important constituent of manure to nitrogen. For second crops, such as spring Cabbage, for example, a few hundredweights of superphosphate on land previously manured for the first crop prove expeditious and economical, though probably without nitrate of soda in the spring a poor crop would result. Spring-planted crops are rather more exacting, as they suffer more from drought, and it would seem inadvisable not to include some manure, except, of course, for Carrots and Parsnips, which, with winter Lettuce and winter Spinach, are crops that can grow in a fertile soil without an immediate application of manure of any kind. Speaking generally, it is the judicious use of artificials in conjunction with farm-yard manure that gives the best results.

G. T.

Society many years ago, still maintains its excellence as one of the best late Peas we have. It has by no means a huge pod, but is of very fine quality and there is no waste, as the pods are quite full. It is a heavy and continuous cropper, with the Ne Plus Ultra quality, grows 4 feet high, and is so well known that I need not describe it. I would ask those who like late Peas in October and November to give Autocrat a trial, as its freedom from mildew and capability to thrive in a dry season place it in the front rank of good late varieties.

Another very fine late Marrowfat Pea is Carter's Michaelmas. This is dwarfer than those named above, and in my experience is the latest variety to set its blossom freely. It is of dwarf, bushy habit and quite free from mildew. The pods are produced in pairs, are large and of a very dark green, and the Peas much wrinkled. It is a remarkably heavy cropper, and though termed the Michaelmas, it may be had in excellent condition well into November. Owing to its dwarfness it is admirably adapted for gardens limited in size. This variety has for some years been grown extensively for August and September cropping, but

I would recommend it for later supplies, sowing specially for that purpose.

Latest of All is a variety less known than those already noted, and, as its name implies, is one of the latest Peas grown. It is a Pea with remarkably rich flavour considering it is produced so late in the season. The pods are not quite so large as those of Late Queen, but the produce is so good that it is one of the most profitable for November gathering. The pods are produced in pairs, and they are borne in great profusion on a dwarf bushy haulm of strong constitution, thus making it most valuable for a shallow soil if given ample manure and grown in trenches with plenty of moisture.

Late Queen is probably better known than most of the foregoing, and, though by no means new, is still one of the most reliable late varieties grown. It is only 3 feet to 4 feet high, of robust constitution, a good one to resist mildew and of splendid quality. There are others, but those named will

Although it seems hardly probable that the Apple mildew will create such havoc as the American Gooseberry mildew, it behoves fruit-growers to adopt more energetic measures to combat its further increase. For two years in succession I have found the fruits of Lane's Prince Albert badly affected with this mildew, the consequences of which have been that the fruits have remained exceptionally small and have been of little marketable value.

According to the Apple Tree Mildew Leaflet, No. 204, issued by the Board of Agriculture and Fisheries, the winter or assigerous form of fruit of this fungus is very rare. I have good reason for thinking, however, that such is not the case, as on several occasions I have found the assigerous stage of this fungus on the fruits of the Apple. Certain varieties of Apples are undoubtedly more susceptible to this disease than others. I have found that Lane's Prince Albert, Bismarck,

I have no doubt whatever that nurserymen are the universal distributors of this disease, as I have frequently seen thousands of Crab and Paradise Apple stocks smothered with this mildew in several large nurseries. These infected stocks are ultimately budded or grafted with the choicer varieties of Apples, the consequences of which are disastrous to the future healthy development of the trees. F. E. T.

PEACHES.

TREES that are bearing heavy crops should have bountiful supplies of water, both clear and as liquid manure, to assist the fruits to swell to a good size. The foliage, too, must be kept free from insect pests by the frequent use of the syringe on bright afternoons till once the fruits show signs of ripening, when syringing should cease. If not already done, finally thin the crops of late kinds, leaving only just the number of fruits required to mature. I am greatly in favour of thinning both Peaches and Nectarines before the stoning process, so as not to overtax the trees at that critical period. The number of fruits left to ripen should be regulated according to the size of the variety and the strength and growth of the trees. Attend carefully to all fresh growths, keeping them neatly secured to the walls or trellises, and if more shoots have been left than will be wanted for next year's crop, thin them out so that the remaining ones may have all the chance possible to grow into sturdy, fruitful wood. Although a goodly number of young shoots may have been removed at the time of disbudding, there are generally others that can be spared as the growths extend, and which, if left, will have to be pruned away in winter. Overcrowding of young wood is most detrimental, and should never be allowed by those who have the trees under their care. The early American varieties are among the first to ripen outside, but if left on the trees too long the flesh becomes woolly and tasteless. They should be gathered with great care a few days before they are ripe, and be taken to the fruit-room or some other dry, airy place to finish, the fruits then being very passable. The midseason kinds—Royal George, Dymond, Stirling Castle, Bellegarde, Noblesse and others—are always excellent, but very late kinds require a good position to bring the fruits to perfection, and in the colder parts they probably would fail to ripen. With us Sea Eagle succeeds well, also the Nectarine Peach and Princess of Wales when the autumn is dry and warm. If carefully looked after, Peaches may be grown outside with every success, and I think they are fully as profitable as any other fruit. All fruits to be sent a long distance must be gathered when perfectly dry and under-ripe, and should be packed carefully in some soft material. I use wood-wool, and am well satisfied with the way they travel and arrive at their destination. The fruits are first placed in soft tissue paper, and then embedded in the material mentioned tight enough to keep them from shaking in the boxes. The boxes are then tied with string and labelled in red ink "Fruit.—With care."

Wrotham Park, Barnet.

H. MARKHAM.

A GOOD CROP OF PEACHES AND NECTARINES.

I AM sending you a photograph of a Peach-house here containing two large trees, viz., Nectarine Pineapple and Peach Bellegarde, each carrying over two hundred fruits.

J. FRENCH.

The Gardens, Lower Hare Park, Newmarket.



A VIEW IN THE PEACH-HOUSE AT LOWER HARE PARK, NEWMARKET.

be ample to select from where late Peas of the best possible quality are required. G. WYTHES.

THE FRUIT GARDEN.

APPLE MILDEW AND ITS TREATMENT.

AMONG the many fungoid diseases which fruit-growers have to contend with, that of the Apple mildew (*Podosphaera leucotricha*) is of increasing importance. During the past few years it has assumed an almost epidemic form in many fruit-growing districts of this country. Where trees are persistently attacked by this mildew, the growth of the young shoots becomes stunted, and in some cases they are completely killed. The blossoms are also liable to infection, and when this happens there is little prospect of the ultimate production of fruit.

Allington Pippin and Cox's Orange Pippin are most liable to become badly affected throughout the fruit-growing districts of Cambridgeshire.

The dissemination of the disease is no doubt due to the profusion of conidial spores which are produced on the young shoots. These summer spores are readily dispersed by the wind and other agencies on to neighbouring trees; consequently there is ever an increasing area of infection unless preventive measures are adopted. Occasionally spraying the trees while the disease is active with a solution of sulphide of potassium will be found most effective in checking its rapid increase.

As the mycelium of this fungus is also believed to be present in the bark of the affected shoots, fruit-growers should adopt the additional precaution of cutting back during the winter all young shoots which have been known to be affected. All such prunings should be burnt and not allowed to lie about on the land.

GARDENING FOR BEGINNERS.

TREATMENT OF RAMBLER ROSES AFTER FLOWERING.

AT this season, when most of the Rambler Roses have finished flowering, there is some important work that requires attention if we are to get the best from our plants next year. Slowly but surely the novice in gardening is taking up the cultivation of the many beautiful hybrids of the Japanese *Rosa wichuraiana*, and there are not many gardens in the country where such varieties as Dorothy Perkins and Hiawatha do not find a home. Their rapid growth and free-flowering characters render them particularly suitable for growing over arches, pergolas, or on rustic trellis fencing, and gardens of the present day owe not a little of their beauty to the judicious use of Rambler Roses.

If we examine our plants now, we shall, or we ought to, find a number of strong, wand-like shoots that have been formed during the present summer. These, in many instances, notably Crimson Rambler, emanate from the base; but in some cases, and particularly in Dorothy Perkins, they may be found coming from the older wood some distance from the ground. But no matter whence they spring, these are the growths that we want to look after, as it is upon these that we shall secure our best flowers next year. What we want to do now is to give these young growths every opportunity to become well ripened before the winter, and with this end in view any old, useless wood that may be present should be removed at once. It is difficult to describe the character of this old wood, but an inspection of a Rambler Rose, even by the merest novice, will reveal branches that it is evident have done their best, and which may well be superseded by the younger ones. After cutting these out, the young shoots that we wish to retain should be tied up loosely, just so as to prevent them getting damaged.

If tied in closely to the supports, sun and air do not reach them so freely. Green fly is often present in the tips of the young shoots, and where this is so it must be removed by spraying, or, better still, dipping them in some good insecticide.

With large-flowered Rambler Roses such drastic pruning cannot now be adopted, but even in these varieties no harm, but rather a great deal of good, will be done by cutting out old wood that is obviously past its best. The use of these larger-flowered, semi-climbing Roses for pillars and arches is now largely adopted by those who like them for cutting, and the accompanying illustration of the old variety *Homère* shows that they are capable of producing very pretty effects in the garden. This arch is in the Vicarage garden at Shalford, a little village about five miles from Braintree in Essex. Here the Rev. A. Law grows Roses and Sweet

Peas in profusion, and when we had the pleasure of seeing his garden one day in June it was filled with the delightful fragrance of these two flowers.

MIGNONETTE FOR THE WINTER.

THIS deliciously fragrant flower is admired by everyone, whether it be in the open ground or in the greenhouse. When the autumn frosts have cut off our supply out of doors, a few pots under

sturdy growth must be encouraged. In autumn, before the nights get too cold or the rainfall too heavy, the pots must be taken into the greenhouse and given a good light position therein. In this way the plants will flower when the fragrant blossoms are most appreciated. H. P.

SUCKERS ON FRUIT TREES.

If a comparatively young fruit tree throws up a single sucker from its roots and the cultivator is content to simply pull off that sucker, more will soon grow. I have seen many scores of trees treated in this way, and in a few years' time the ground under them was fairly well covered with young sucker shoots. It is a very difficult matter to clear the main roots of these growths when the latter have been left for so long a time undisturbed except the annual removal of their tops. I strongly advise inexperienced cultivators to forthwith remove all suckers as soon as they are seen. Merely breaking them away at the soil-level will not do; the soil must be carefully removed right down to the main root of the tree from which the sucker grows, and then the latter must be cleanly cut away with a small portion of the root attached to it. There is not much labour entailed in the removal of one or two suckers from each tree, but a great deal if neglected for several years. The cut part of the root from which the sucker is taken may be notched with a sharp knife; then many fibrous roots will grow from it. AVON.

PREPARING LOBELIA PLANTS FOR WINTER.

WHERE it is intended to winter plants instead of rooting cuttings, the former must be duly prepared, else they will die during the winter months. The reason why so much Lobelia is lost in winter is because the plants are not lifted

and boxed until it is time to clear the flower-beds generally, and then they do not form new roots freely, as the dull, cold days have come. Hundreds of plants damp off wholesale in the depth of winter. In August the number of plants required should be selected and all flowers cut off. In a fortnight's time young shoots will again grow; then lift the plants carefully with earth attached to the roots and plant them in boxes which are 4 inches deep and large enough to contain one dozen or two dozen plants when put in 4 inches apart each way. Use a nice gritty compost and give water directly the plants are put in, but be careful not to over-water afterwards. Keep the boxes in a cool frame very freely ventilated. Guard against damp and frost through the late autumn and winter. A shelf in a warm greenhouse is an ideal place for them. In spring cuttings will be plentiful. B.



A BEAUTIFUL ROSE ARCH IN A VICARAGE GARDEN IN ESSEX.

glass are doubly welcome, and in order to obtain these, seeds should be sown now. Pots 5 inches in diameter are very suitable for the purpose. They should be quite clean and effectually drained. A suitable compost for Mignonette should consist mainly of good loam of a fairly holding nature, lightened by a little old broken mortar rubble and silver sand. It is necessary that the soil be pressed down very firmly, as this ensures good stocky growth. The seeds must be sown thinly, and when sufficiently advanced, so that the best can be selected, the seedlings must be thinned out, ultimately leaving from three to five plants in a pot. The seeds will germinate well outside, the main thing being to see that the soil does not get saturated in the event of heavy rains, as an excess of water is very injurious to Mignonette in any stage of pot culture. In every way good,

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Bedding Plants.—These should by this date be at their best, and between now and the end of the month a supply of cuttings should be obtained for propagation and next year's requirements. A few early cuttings of Geraniums can be obtained without disfiguring the beds if a little care is exercised. Select well-ripened shoots. They will root easily, and may be transferred to frames towards the end of next month. The lesser-growing and more tender subjects, such as Lobelias, Heliotropes, Iresines and Alternantheras, will be best inserted in pots a little later, when I hope to refer to them.

Pansies.—Seeds of these may now be sown in boxes or pans of a suitable size, filled with a sandy open compost of fine soil, stood in a cold frame and kept shaded until germination takes place. As soon as the seedlings are large enough, prick them out into beds or borders, having first well prepared the ground and broken the surface down to a fine tilth. Keep the young plants watered as necessary, and the soil around them frequently stirred with the Dutch hoe.

The Rock Garden.

Taking Cuttings.—The present month is the best time for increasing by means of cuttings many of the shrubs of dwarf habit so eminently suited to the rock garden. Select young growths, firmly insert them in a bed of fine sandy soil in a frame or pots filled with a similar compost, and keep them shaded from bright sun and watered and damped as necessary.

Shrubs for Rock Garden.—A few that may be increased in this manner are the Cistuses in variety, also Helianthemums, Olearia macrodonta, O. stellulata and O. myrsinoides, Hypericum empetrifolium, H. undulatum, H. olympicum, Cotoneaster humifusa, Caryopteris Mastacanthus, Perowskia atriplicifolia, Santolina Chamæcyparissus, Othonnopsis cheirifolia (of sub-shrubby habit) and several varieties of Ceanothus.

Daphne Cneorum, the most beautiful of all the Daphnes, is best increased by layering, as are also the smaller-growing Berberises, such as B. Fremontii.

Taking Offsets.—To have a few reserve plants in case of any injury happening to those planted out, many of the Saxifrages, Sedums and Sempervivums may be propagated by potting up a few offsets in a compost of loamy soil, made porous by the addition of some coarse grit or lime rubble, and stood or plunged in ashes in an open frame, lightly shading for a few days from bright sunshine. Well water in, and afterwards damp over with a fine-rosed can and expose to plenty of air and sunlight.

Fruits Under Glass.

Peaches.—Earliest-forced Peaches and Nectarines in pots will be much benefited by removing them out of doors to a fairly sheltered spot, so that the wood may become thoroughly matured. Make well secure against winds, and keep the plants supplied with water and vigorous syringings of the foliage to maintain it in a healthy condition. The same remarks apply equally to pot Figs.

Figs.—Late Figs in pots must be kept well supplied with water at the roots, and will need considerable supplies of nourishment to assist them to fruit. The growths must be stopped and thinned, especially weak shoots, and those with large foliage particularly must not be allowed to become overcrowded. Young plants that were raised from cuttings this season should have every inducement given them to make nice plants.

Autumn-fruiting Strawberries.—These are well worth cultivating in pots for supplying dishes of exquisitely-flavoured fruit in the autumn. Until the plants are required indoors, the surroundings should be kept moist by frequent dampings, the plants kept well supplied with water and some stimulant occasionally given. The flower-trusses should be removed as they begin to set until required, also any runners and decayed leaves. If the soil on the surface becomes hard, aerate with a pointed stick. St. Antoine de Padoue is the best variety with which I am acquainted.

Plants Under Glass.

Winter-flowering Carnations.—The young plants, whether growing in pits, houses or stood out of doors, must not be neglected, and attention must be regularly paid to the staking and tying of the growths. The latter I prefer to loop up singly with neat twisted strands of raffia. Give a sprinkling of Carnation manure when rooting freely, and vary other stimulants once a week. It is well to have the plants so that protection can be given them from heavy rains; but on warm days towards evening the plants appreciate a dewing over of the foliage and a good damping down of their surroundings.

The Orchid-Houses.

Ventilating.—Throughout the summer months the majority of the occupants will benefit by a free circulation of air, and, of course, the cooler-growing section can hardly be overdone, combined with heavy shading, which should be removed, however, when the sun has gone off the house. Plenty of damping of the floors and moistening the stages and between the pots will be beneficial, as will also sprayings overhead, especially to Odontoglossums. Plants that are growing freely will in most cases take plenty of water at the roots, and those growing in baskets or perforated pans should be immersed in a pail of water.

The Shrubberies.

Buddleia variabilis.—This shrub is now making a fine display. As the name implies, there is considerable variation both in the size and colour of the flower-trusses and also the time of flowering. They are quite hardy, free growers and ought to be included in all collections. The plants may be propagated by cuttings of the young shoots or division of the roots in winter.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Narcissus.—If at all possible, new plantations of Narcissus should be made without delay. In naturally dry soils a fair proportion of rotted manure should be deeply incorporated with the soil and, after planting, a layer of the same material and soot may be spread over the entire surface. It becomes well mixed by means of the hoe, which will occasionally be needed to surface-stir the beds to kill seedling weeds.

Colchicums.—These, too, should be transplanted if not already done. Perhaps the finest of the autumnal species is speciosum album. The plants make growth subsequent to flowering, which those unacquainted with this habit should note.

Belladonna Lily.—Clean all weeds from about established plants and stir the surface soil round about them. If the soil is dry, which it usually is when the plants are established near the base of sunny walls, a soaking of water should be applied, which will enable the flower-spikes to come all the stronger.

The Rock Garden.

Crocuses.—If any autumn-flowering kinds are to be planted, it should be done at once. Speciosum, which is an exceedingly lovely and inexpensive kind, flowers in September, so that there is not much time to delay. They are best when established under some low-growing creeping alpine plants, such as Saxifrages or Hutchinsia alpina. The common Saffron Crocus is also lovely, but is apt to die out or to abstain from flowering.

Dianthus.—Some of the earlier-flowering kinds will be seeding, and, unless seeds are wanted, it will conduce considerably to the appearance of the rockery to remove the stems. This is easiest done where the clumps are extended by means of a pair of sheep-shears or small, very sharp hedge-shears. Cuttings of some of the Mule Pinks will strike root if not allowed to ever get dry till rooted.

Campanulas.—The rather rough-habited turbinata and carpatica and varieties are apt to overstep the limits when in flower. The effects of this tendency are easily counteracted by pulling away pieces from underneath the plants, the upper portions meanwhile falling down but covering less space.

The Fruit Garden.

Removing Sprays.—It is usual for Pears, Plums, and Apples to produce weakly growths from the cut-backs of the summer pruning. These are of no manner of use to the trees, and should be removed as opportunity presents itself, not cutting them, but removing them entirely. The sooner this is done, the easier they are to break off.

Apricots.—The earliest fruits of these will be ripe or ripening, but much depends on the weather. I have known it to be September before any ripe fruits could be gathered. For preserving, the fruits are better if not quite ripe. When fully ripe, the skins are not so easy to peel clean. Where birds are preserved, it is imperative to place herring-nets in front of the trees, and it may be added that the only way to circumvent wasps once they discover them is to pick the fruit at short intervals and before it is quite ripe, keeping it till ready in a cool fruit-room.

Peaches.—All the trees should be gone over and the new shoots laid in finally before the crops ripen. It is essential to expose the fruits to the light, and this more especially as regards late varieties. Some successful growers soak the borders with manure-water in order to increase the size of the fruits. There is always a danger of retarding the ripening of the wood where this practice is followed, but it indubitably is the means of the production of high-quality fruits.

Shrubs.

Deutzias.—The late-flowering varieties of the scabra section have been very fine, and now that the flowers are past, these shoots may be cut back to allow greater space for those of the present year, which will be the flowering shoots of next year. Prune so that flowers may be produced from the base of the plants instead of from the upper parts only, which they have a tendency to do unless corrected by judicious pruning.

Spiræas.—The good effect of hard pruning in spring will now be seen in the beautiful condition of the japonica and callosa sections, which are covered with bloom. The present is the best time to prune ariæfolia, which has just finished flowering. Very slight pruning is needed; merely a shoot here and there to ease the plants in places which are overcrowded with shoots. Lindleyana may also be seen to.

The Vegetable Garden.

Leeks.—If some soil be drawn up to the rows of the maincrop Leeks, it will serve to lengthen the part blanched, which by many is the only part used.

French Beans will be generally far enough advanced to necessitate the picking off of the too advanced pods, which are extremely hurtful to the cropping qualities of the plant if left to mature. Those for late cropping in frames should be thinned to at least 12 inches apart.

Lettuces and Endive.—Where these are in daily request, transplant at short intervals from the seedling lines in any ground as it becomes vacant. Lettuce does best in a well-worked friable soil. Endive is less exacting in its requirements, and a rather poor soil is to be preferred for it. In such it undergoes the exigencies of our winter climate better than if grown rankly.

The Plant-Houses.

Narcissus.—The potting and boxing of these bulbs should be finished forthwith. They succeed best in not too small pots, and in none do they ask for much drainage, the space which would be occupied therewith being more advantageously supplied with the roughest of the compost made rather firm.

Carnations.—Those border varieties which have been grown and flowered in pots should now be turned out and planted on a border and the grass layered. The rule invariably is that such layers provide the healthiest plants, and some kinds, e.g., Lady Hermione, can in some gardens be kept only by this treatment.

Schizanthus.—There is no special hurry to sow seeds, the main sowing being better deferred for some weeks. Those who do sow now will find the practice of sowing in small pots, afterwards thinning the seedlings to one in each pot, a very satisfactory way of starting these.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Lysimachia Henryii.—A recent introduction from China, a plant of sterling merit and a useful addition to the genus. As a summer-flowering and free-flowering plant of low growth it will be welcomed by all hardy plant-lovers. Not more than 6 inches or 8 inches in height, the trailing or sub-erect branches are terminated by a cluster of clear yellow flowers arranged in a leafy setting. It is perhaps the only member of its race worthy of inclusion in the good rock garden, where it will be most at home in cool or moist places in a spongy soil. Several admirably-flowered examples were shown by Mr. M. Prichard, Christchurch, Hants.

Gladiolus Crown Jewel.—This is apparently a strong-growing variety of salmon pink colouring, with yellow blotch on the lower petal. From Messrs. J. Kelway and Son, Langport.

Begonia Decorator.—Judged by the drooping habit of its flowers, this variety should prove of considerable value for basket-work or for any position where a trailing plant is desired. The example shown was grown as a pyramid, and was highly attractive. The scarlet flowers are of medium size. Exhibited by Messrs. Cannell and Sons, Swanley.

Rhododendron Clorinda.—This is one of the javanico-jasminiflorum hybrids, and was raised from a cross between jasminiflorum carminatum and Minerva. The flowers, which are of a rich rose colour, shading to scarlet at the margins of the petals, are produced in a large and handsome truss. From Messrs. James Veitch and Sons, Limited, Chelsea.

Clethra arborea.—It may seem strange that any plant known to cultivators or botanists for something like a century and a-quarter should not have had its merits recognised long ago. Such, however, appears to be the case, the plant having been introduced in 1784 from Madeira. Usually cultivated in inland gardens as a greenhouse shrub, it is sufficiently hardy in the open in the South and South-West to warrant general cultivation in that way, and grows into a handsome, freely-flowered bush several feet in height. Thus seen it is a plant of ornament and beauty, the pure white fringed flowers depending from the under sides of the horizontally-disposed branches with great freedom. As a pot plant for the cool greenhouse or conservatory it is worthy of general notice. From Messrs. Stuart Low and Co., Enfield.

Eschscholtzia Mikado caniculata.—The most brilliant colour in Eschscholtzias we have seen, and a novelty of considerable merit. The colour is intense crimson scarlet, with more than a suspicion of orange infused therein. The petals are distinctly frilled or pleated, distinction being thus added to a brilliant flower. From Mr. W. H. Gardiner, Mill Street, St. Osyth.

Rose Danae.—A new Polyantha variety of distinction and merit. The colour tone is an approach to that of a pale Lady Hillingdon, the form of the flower being slightly cupped. Judging from the examples shown, the new-comer should prove an acquisition. Exhibited by the Rev. J. H. Pemberton, Havering-atte-Bower.

Astilbe simplicifolia.—A new species of dainty grace and elegance, and a miniature withal. Six inches or so high and of a spreading, tufted habit of growth, the hard-textured leaves are entire, 2 inches or more long, tapering to a needle-point,

and with copiously and acutely toothed margins. The minute blossoms are pure white, and are produced in a spray-like inflorescence which is disposed horizontally. It is quite an acquisition to hardy plants, and of undoubted hardiness. It is from Japan. Exhibited by Mr. G. Reuthe, Keston, Kent.

Hæmanthus Andromeda.—We have no information concerning the parentage of this showy form, which in general aspect approximates to a pale-coloured H. Katherinæ. The colour is pale orange scarlet. Several fine plants were shown, and all proportionately handsome in leaf and flower. Exhibited by Mr. Cory, St. Nicholas, Cardiff.

NEW POTATOES.

The following awards were made to new Potatoes as the result of trials held at Wisley: A first-class certificate was awarded to Messrs. Smith and Sons, 18, Market Street, Aberdeen, for the variety Whitehill Seedling. Awards of merit were granted to Messrs. Barr and Sons, Covent Garden, for Imperial Beauty; and to Mr. W. E. Sands, Hillsborough, County Down, Ireland, for the varieties Irish Gem and King George V.

The foregoing awards were made at the fortnightly meeting of the Royal Horticultural Society held on July 30.

CLIMBING ROSES IN AN ISLAND GARDEN.

SOME Roses trained on walls have grown and flowered profusely. Among the best are J. B. Clark. This Rose the writer has never seen in finer condition. The flowers were exceptionally large and the colour intense deep scarlet, with its shade of blackish crimson, and the petals carrying a rich bloom like a Plum. This Rose is growing on an east wall, but is sheltered from the full force of the east winds by another wall running parallel on the opposite side of a garden walk. American Pillar is now, at the time of writing, one mass of flowers, very healthy and producing strong young shoots. The Wallflower has flowered well, although not growing so strongly as one would like to see it. Climbing Kaiserin Augusta Victoria has produced an abundance of its immense flowers. Near to the latter is the pretty little Rose Fairy, a Polyantha Rose which is happily named, not a strong grower, but a perpetual bloomer. Its small white flowers, with yellow anthers, are very attractive. Mrs. F. W. Flight has produced an abundance of its bright pink semi-double flowers. Rubin has flowered freely for several weeks. The dark foliage of this variety adds much to its attractiveness. White Dorothy Perkins on an east wall is commencing to flower, but this variety, with its pink progenitor, is not so free-flowering here as one generally expects to see them. Blush Rambler is very good. Queen Alexandra is one of the best growers, although flowering somewhat sparsely. Una grows very vigorously, and is one of the best we have. Excelsa on a west wall grows and flowers freely. Mme. Alfred Carrière, planted this spring in an exposed position, has made some good strong shoots which look promising for a wealth of bloom next season. Varieties which have made abundance of healthy growth, but have not flowered as freely as one would like to see them, are Thalia, Goldfinch, Gloire de Dijon, Cheshunt Hybrid, Aglaia and Grüss an Teplitz. Bouquet

d'Or should be mentioned as the best early-flowering variety we have on a west wall. Among Climbing Hybrid Teas, in addition to Kaiserin Augusta Victoria, already mentioned, Climbing La France, Climbing Mrs. W. J. Grant and Climbing Caroline Testout are excellent. William Allen Richardson lost a good many shoots during the early spring. Dundee Rambler is not growing with its usual vigour. Possibly it may do so when it gets thoroughly established. The Garland and Jersey Beauty, planted this spring, are growing freely. Rêve d'Or is making only moderate growth in an exposed place, but where growing in a sheltered position it is very satisfactory. Crimson Rambler and Tausendschön are both badly affected by mildew and are not at all good here. The possible reason is that they do not get sufficient sun. China Roses in the borders are very healthy. Conspicuous for freedom of growth and flower is the variety Queen Mab. The Penzance Briars do not suffer to any extent from the violence of the strong south-westerly gales which are so frequently experienced.

COLIN RUSE.

Lambay Island, Rush, County Dublin.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

CARNATIONS NOT FLOWERING (*Beatrice*).—Failing a sight of the plants referred to, we can only suggest that the plants were either small or undeveloped specimens, or that, if of good size, the Carnation maggot has eaten out the hearts during winter. You might prove this or otherwise by a close inspection of the central parts of the plants. Their bushiness, particularly if the growths be small, points to an attack of the maggot. The leaves may have fallen from the Rose because of extreme root dryness or a bad attack of red spider. Damp in a year like the present, the spring of which has been remarkably dry, is not likely to be the cause. We presume the plants have a fair depth of good soil, but you say nothing about this or the position they occupy, and either or both may have an important bearing on the point. The Gladioli would be far better lifted, rested and replanted, and will give more satisfactory results if so treated. Lift the early ones in August, and replant in October in a fresh spot. Take up the late-flowering sorts late in September or in October, store them in some dry, frost-proof place, and replant them in March. The early ones you could still mulch with impunity.

PLANTING NEWLY-MADE ROCK GARDEN (*Veritas*).—Without knowledge of the preparation made for the reception of the plants, it would be hazardous to give you a list for your somewhat extensive arrangement. So many things go to make success in such matters—environment, the average size of the pocket, space at the disposal of the planter and, not least, some knowledge of the plants themselves to ensure their rightful disposal. We will give you a list of plants with pleasure, but in so doing would like to feel that we were giving you the best for the purpose. In a rock garden of the extent named and of such varying height there should be room for a great variety of things—dwarf conifers, trailing shrubs and alpine—not of the expensive order, but of a type calculated to make it interesting over a prolonged period. As it is only just completed, there is no immediate occasion for planting it, and a few weeks hence, when the soil has settled down, would be better. Would you, therefore, in the meantime send a few further particulars, especially concerning the soil depth and the provision made for

the plants, with some idea of its width and its steepness or otherwise? The case is really one for advice on the spot, and an expert's fee might be saved many times over and much future disappointment avoided were this view adopted.

ARUM (A. K.).—The specimen you send is the common Dragon (*Dracunculus vulgaris*), also known as Arum Dracunculus. It is an interesting and curious plant, growing wild in South Europe. You may not think the flower very showy, but many people consider the plant worth growing for the foliage and mottled stems. *D. vulgaris* thrives in most soils, but prefers a rich, moist soil in a half-shady position. The plants are often associated with hardy Ferns. Propagation is effected by division of the roots in spring just when new growth is commencing.

PYRETHRUMS AND IRISES (W. W.).—Some good double-flowered Pyrethrums are *Ne Plus Ultra*, bluish pink; *Captain Nares* and *J. N. Twerdy*, crimson; *Pericles*, yellowish; *Carl Vogt* and *Aphrodite*, pure white; *Queen Mary* (new), pale pink; *floribundum plenum*, rose; and *Solfatère*, pale primrose. Your enquiry concerning Irises in June is a little vague, as in that month the entire range of Flag or German Irises, and Spanish Irises, which are bulbous, are then in bloom. Apart from these there are a great variety of distinct forms. A good collection of Flag Irises should include *aurea*, golden; *Mme. Chereau*, violet and white; *Queen of May*, rosy lilac; *Dr. Bernice*, smoke and bronze; *pallida* and *p. dalmatica*, delightful shades of mauve; *Princess of Wales*, white; *atropurpurea*, dark purple; and *Mrs. Charles Darwin*, one of the best of the whites. All Irises are good for cutting, and if this selection does not meet your requirements, please give us a more definite idea of your needs. We cannot say which is the largest *Ranunculus*; everything depends on the size of the tuber and the cultivation afforded to individual plants or groups.

REMOVING PLANTS IN SEPTEMBER (H. A. S.).—Though such things as Michaelmas Daisies, and in a lesser degree the hardy Fuchsia and Anemone, would be in flower at the time, none of these would be inconvenienced greatly by the removal so far as future success is concerned. The better way to deal with them would be to lift the clumps, shake off a good deal of the soil, and pack closely in egg-boxes or anything of convenient size. Most of the plants will, if large, repay for dividing. The *Pæonies* must certainly not be replanted intact if big, unless failure is courted, while *Iris stylosa* should be freely divided and replanted in stony or gravelly soil, or that charged with old mortar refuse, in the hottest position you can command. In all the circumstances your better plan, seeing that the garden to which you are going is unoccupied, would be to obtain permission to enter and prepare in advance, and with permission to move the plants these could be lifted piecemeal. The overgrown shrubs will require some attention, but only a person on the spot could decide this. The sketch you submit appears to be a quite convenient one for the place, that is, so far as making the most of the ground is concerned, while the side borders might be devoted to herbaceous perennials, Roses and other flowers. The new garden should be thoroughly trenched and manured, and coarse weeds removed and burnt. "The Culture of Vegetables and Flowers," published at 5s. by Messrs. Sutton and Sons, Reading, should prove helpful to you, seeing that it treats of all-the-year-round gardening. Apart from this, the columns of THE GARDEN weekly contain much useful information concerning these and other departments of gardening. "Root and Stem Vegetables," by Alexander Dean, price 1s. 6d., should also prove of service. It may be had of the Publisher, 41, Wellington Street, Covent Garden, W.C.

TREES AND SHRUBS.

EUONYMUS (M. O. A.).—The *Euonymus* is attacked by a scale insect, a species of *Lecanium*. The brown scale protects numbers of pinkish eggs, and little can be done to destroy these; but watch should be kept, and as soon as the eggs hatch, the bush should be sprayed with paraffin emulsion or with a nicotine preparation. In the case of deciduous bushes, such as Currants and Gooseberries, a useful measure is spraying with an alkali wash in winter, but this must on no account be used on bushes which retain their leaves.

LAVENDER, ROSEMARY AND LEMON VERBENA (H. E. B.).—September is a good time to plant Lavender and Rosemary. Your treatment of the Lemon Verbena (*Lippia citriodora*) is that usually followed with success. Why a plant in apparently good health and favourable position should die for no evident reason puzzles the greatest horticultural experts at times, yet such a thing does happen in almost every garden from time to time. All we can suggest is to plant a young Lemon Verbena out again next spring, when probably you will be more successful. Plants against a wall sometimes get dry, even during showery weather, owing to rain beating the other way.

LILAC BUSHES UNSATISFACTORY (G. G. N.).—The exceptionally dry spring is, no doubt, the cause of your bushes failing after replanting, for though you may have provided plenty of water at the roots, overhead watering is necessary as well. It is advisable when replanting trees and shrubs of any size to reduce the growths to compensate somewhat the disturbing of the roots, which, naturally, take some little time to become established. Your best procedure now will be to cut down the bushes to one-third their height, mulch with some old decayed manure, water the roots during dry weather, and syringe or damp over the top morning and night to induce the production of young shoots from the wood.

ARBUTUS AND OTHER SHRUBS (R. S. D.).—Unless *Arbutus Unedo* is outgrowing its position, it requires no pruning. If you wish to reduce its size, cut it back in April. *Diplopappus chrysophyllus* may be cut back in March or April. *Perowskia atriplicifolia* may be pruned fairly hard in March. The dwarf kinds of *Philadelphus*, such as *P. Lemoinel*, should have all flowering wood cut away as soon as the flowers are over. The tall-growing kinds require very little pruning. An occasional thinning out may be given after flowering. The late-flowering kinds of *Tamarix* may be cut back in spring; the early-flowering kinds after the flowers have faded. *Viburnum rhytidophyllum* requires very little pruning. If the branches are becoming ragged, however, they may be topped any time during late spring or early summer. *Weigela* may be thinned out as soon as the flowers are over. Thinning is not required every year, and when it is done it should take the form of removing the older branches. Two of the best deciduous Barberries are *Berberis vulgaris* and *B. Thunbergii*. The two best evergreen kinds are *B. stenophylla* and *B. Darwinii*. Two of the best dark red Lilacs are *Charles X.* and *Souvenir de Louis Spaeth*. Two good white ones are *Syringa vulgaris alba grandiflora* and *Marie Legraye*. A good tall-growing *Philadelphus* is *P. grandiflorus* variety *floribundus*.

THE GREENHOUSE.

CARNATIONS (T. B.).—The three classes of Carnations concerning which you enquire are propagated in different ways—the Perpetual-flowering by cuttings in the early part of the year, the border varieties by layering in the open ground as soon as the flowers are past, and the Malmaisons by layering under glass in the month of July.

FERN-HOUSE AND FLOWERS (K. Q.).—An exceedingly difficult question, and possibly you may think our answer a disappointing one, for we do not really know of any flowers good for cutting that may be grown in the interstices of the walls of a Fern-house. The atmospheric moisture suitable for the Ferns would also be beneficial to the red and white *Lapagerias*, and you might perhaps with advantage train them to the roof. In the warmer house, pretty foliage subjects, such as *Begonias*, *Panicum variegatum*, *Pittonias*, *Episcia fulgida* and others of this class, may be grown, but the flowers are of minor account, and in no case are they available for cutting.

PRIMULAS (B. S. R.).—*Primula cockburniana* generally succumbs after flowering, because it is only a biennial. It seeds freely. Seed should be sown soon after it is ripe; then a good stock is kept up. Although *Primula japonica* hybrids are usually classed as perennials, the finest display is procured by growing on a stock of young plants. When the plants get old and have flowered profusely, they often decay at the base instead of forming fresh crowns, especially when we get a lot of rain immediately after. Another cause is too rich a soil or planting them too deeply. One piece you sent would have probably grown if it had been potted up and kept shaded in a close frame for a few weeks. Regarding those left in the ground, we should take up those affected, divide into single crowns, and lightly dust the base with lime or powdered charcoal. Place each crown in a small pot and, when established, plant out in a fresh piece of ground. You will probably lose some, but as *P. japonica* produces seed in abundance, we should certainly save some from the best varieties and sow it as soon as ripe, when germination takes place in a short time. In two years you would have very strong-flowering specimens.

VARIOUS QUERIES (C. B. A.).—The three *Begonias*, namely, *Gloire de Sceaux*, *corallina* and *President Carnot*, will all conform to the same mode of treatment. They can be readily struck from cuttings of the young growing shoots taken during the spring months, inserted into pots of light, sandy soil, and placed in a close propagating-case with a gentle bottom-heat. It is, however, now too late to think of propagating from your old plants this season, but they may now be repotted. A mixture of two-thirds of loam to one-third of leaf-mould and a good sprinkling of silver sand will suit them well. As much of the old soil as possible should be removed when repotting, and care must be taken not to use pots too large. Although these *Begonias* will, during summer, thrive in the greenhouse, they will be all the better, if you have a structure available, in the temperature of an intermediate house. In order to induce them to flower during the winter, the temperature of the house in which they are grown should at that season not be allowed to fall below 50°, and it may run up 10° to 15° during the day. The *Gesneras* which are resting should be started into growth without delay. To do this they may be shaken quite clear of the old soil and be repotted in small pots in a mixture of equal parts of loam and leaf-mould, with a liberal sprinkling of silver sand. After this they need to be placed in a fairly snug structure kept at a temperature above that of an ordinary greenhouse. Care must be taken not to overwater till growth commences, when more can be given. In the autumn they require a good light position in a house where a temperature of 55° to 70° is maintained. They will need to be shaded till the sun loses power, and at no time should the rich velvety leaves be syringed. As soon as the plants are sufficiently advanced, they must be shifted from the small pots in which they were started into larger ones, 5-inch pots being very suitable for this shift. If you wish your Perpetual-flowering Carnations to flower during the winter months, it will not be a satisfactory arrangement to grow them and the Malmaison varieties together. The members of the Malmaison group should, during the winter, be kept as cool as possible consistent with their being quite safe from frost. A minimum night temperature of 45° in mild weather, or a little higher

during severe frost, will be very favourable to Malmaison Carnations; whereas, in order to obtain flowers of the Perpetual-flowering varieties, the house must be kept nearly ten degrees warmer. You might obtain fairly good results by maintaining a temperature between the two. The plants will not require shading. Something might be done by placing the Malmaisons at the coolest end of the house.

ROSE GARDEN.

INJURY TO ROSE FOLIAGE (Blanche Branston).—The foliage you send has been injured by the Rose slug-worm. If you examine some of the leaves, you will find a small greenish-looking maggot on the under side of the foliage. It can easily be killed by spraying with nicotine wash or Hellebore wash. We have given a recipe for both in a recent number of THE GARDEN. It would be well to have the surface-soil removed to a depth of about an inch next winter, and either bury it deeply or burn it.

ROSE FOLIAGE BLIGHTED (Sir F. G.).—The fungus attacking your Roses is that known as red rust or orange fungus. Very few of the Hybrid Perpetual Roses escape this fungus, especially at this time of the year, and we do not think you need be alarmed about it, as it is often disseminated from the wild Roses; but it would be well to spray the trees with Bordeaux mixture at once. Remove the worst leaves and burn them, and in winter collect all fallen leaves and also burn them.

BASIC SLAG TO ESTABLISHED ROSES (E. K. B.).—This excellent fertiliser is very beneficial to established Roses. It is very slow in its action, so needs to be applied in the autumn. A dressing at the rate of 6oz. per square yard of surface would be about right. This should be forked or hoed into the soil, and may be applied at the same time as the annual dressing of farmyard manure. Try to secure some of the best manure you can from a farm where cows and pigs are constantly treading it about. This is far better than the strawy material that too often passes muster as manure.

KITCHEN GARDEN.

BLACK CATERPILLARS DESTROYING ASPARAGUS (L. L.).—Spray the foliage of your Asparagus with the wash given below, and you will find the caterpillars will disappear. If they do not after one application, they will after two. The wash should be applied in a fine spray with the syringe or garden pump, and at once. Asparagus is now out of season, and you should cease cutting, or the plants will suffer injury another year. In spraying, see that every part of the plant is well wetted. Arsenate of soda (dry), 2oz.; acetate of lead, 7oz.; water, 10 gallons. Dissolve together in water and well stir, adding 1lb. of treacle.

FRUIT GARDEN.

PEACH FRUIT DROPPING (E. Hopkins).—The cause of the fruit dropping is, no doubt, the defective stoning of the fruit of which you speak. It is a malady of the Peach termed "stone-splitting" or "rotting." This is generally attributed to the defective fertilisation of the blossom when the tree is in bloom. Next year be careful to fertilise every blossom on your tree, and that with pollen from other trees in bloom at the time, if possible; if not, with the tree's own pollen.

INJURY TO FRUIT TREES (Barnside).—Many gardens have suffered greatly this spring from late frosts, drying winds and long spells without rain, with the result that the tender foliage of Apples has suffered severely. This is sometimes seen in spots, brown or reddish, on the leaf, sometimes in the margin of the leaves becoming affected, often in the whole leaf being browned and "burnt." Apples with tender foliage, like Cox's Orange Pippin and similar varieties, are usually the first to suffer, and suffer most severely. Spraying with half-strength Bordeaux mixture will help to protect the foliage, even when weakened by bad weather conditions, from attacks by fungi, for some common fungi, like *Cladosporium herbarum*, are apt to attack such weakened leaves; but unless shelter can be given, in certain seasons Cox's Orange and similar Apples are almost certain to suffer.

GRAPES MILDEWED (Mrs. L. L.).—There is no manner of doubt as to what your Grapes and Vines are suffering from, namely, a severe attack of mildew. The cause of the attack, no doubt, is due to the prevalence of so much cold and wet weather, and especially to the night temperature ranging so low. Had a little fire-heat been applied to the pipes at night on the occasions of cold and wet nights, the probability is that the Vines would have been saved from attack. Next year you must try to bear this in mind. It is only a very little heat which is required, just enough to slightly warm the pipes, in order to create a movement and circulation of air. With this small amount of heat at night in cold, wet weather, a very little air must be admitted back and front, so that a circulation of air is maintained. Two of the bunches sent are so badly affected as to be useless, and should be burnt; but there is one which we should leave, and all others like it, as they may yet develop into useful Grapes. After all the badly-affected bunches are cut off, dredge those remaining thickly with flowers of sulphur (all the Vine leaves as well), let the sulphur remain on for thirty-six hours, shading the house slightly during this time, and then syringe the sulphur off with clear rain-water only. If the dredging is effectually done, the mildew will be killed, and as a consequence the Vines will greatly improve in health.

GRAPES DISEASED (R. C. B.).—The Grape berries sent are suffering from a disease termed scalding. This invariably attacks the Grapes at the time when the berries are of the size and age of yours. The only way of preventing an attack is to ventilate freely in warm weather, both day and night, and in cold weather to apply moderate heat to the pipes, so that ventilation can take place even then. It is a form of fungi, and the best way of killing it is to dredge the berries with flowers of sulphur, blowing it off or syringing with rain-water at the end of three days.

CHERRIES (Barker).—The Cherry is affected by brown rot. This fungus attacks not only the fruit, but also the stem and leaves and flower and fruit stalks. It spreads from the mummified fruits which remain on the tree, and from the affected shoots to the developing fruits in the spring, and, no doubt, it is this which has caused the losses of which you complain. All dead or dying branches should be pruned out of the tree and burned, and the tree be sprayed with copper sulphate (1lb. to twenty-five gallons of water) in the winter and, as soon as the petals drop, with Bordeaux mixture.

MILDEW ON GRAPES (J. F. B.).—The mildew has, no doubt, been brought on by too cold and moist an atmosphere at night, with an alternate high temperature during the day. The best way of killing the mildew is by dredging the bunches with flowers of sulphur, leaving it on for three days, and then syringing sharply off with soft, clear rain-water. This will leave no marks or sediment on the berries. The way to prevent an attack in future is to have a little heat in the pipes at night in cold and wet weather, in order to create a better circulation of warmer air.

MISCELLANEOUS.

ASPARAGUS BEETLE (Miss E. P.).—The Asparagus beetle pupates in the soil, which it leaves about May, and lays its black eggs on the green shoots of the Asparagus. These hatch into blackish grubs, which feed upon the shoots, often doing much damage. There may be more than one brood during the year. Spraying the plants with paraffin emulsion is a useful measure, and it would be worth trying the effect of lead arsenate. The beetles may be easily captured by hand.

PLANTS FOR CHALKY SOIL (A Student).—There is quite a large variety of plants—annuals, alpine and shrubs—that will grow on chalky and limestone soils, so that we think it would be better if you gave us a more definite idea of your needs. Some plants, on the other hand, object to lime-charged soils. Chalk and lime are not quite the same thing to plants, while their success on these soils is dependent, to some extent, upon the top soil available before the rock is reached.

FREE STUDENT (G. R., Sweden).—The Royal Gardens, Kew, London, are free to students under certain conditions as to age and the training previously received. The public parks of London are also free, under similar conditions, and so also are some of the large commercial nurseries. Your success in finding a situation of this kind depends very much on your age and the training in horticulture you have had. If you are young and inexperienced, you would have to pay a fee to be taught, and would probably have to work the first year without wages. A good way for you to proceed would be to get the Curator of the National Botanical Gardens of Sweden, or some other gentleman holding an important horticultural position, to write to the Curator of Kew Gardens on your behalf, or to the Superintendent of Hyde Park, London, or to any of the large nurserymen, stating fully your age and qualifications, with testimonials as to character.

PACKING ORCHIDS (Borneo).—The majority of Orchids travel best if packed dry in moderately dry moss. They must be collected when the growths are mature. Epiphytal kinds may be taken from the trees and packed in boxes in the following manner: Place a layer of fairly dry moss at each end of the box; on the moss place a layer of plants, then more moss; afterwards a batten at each end to keep the plants in place. Follow on with other layers until the box is full. Two or three holes, 1 inch to 1½ inches in diameter, may be made in the ends of the boxes to admit air; but they must be covered with perforated zinc, or it is likely that rats may find their way through. After nailing the lid down, label the box, "Living plants, for cool part of hold, away from the boilers." Ground kinds should be taken up when mature, and deciduous ones packed among slightly damp moss. Evergreen ones may have the roots tied in moss and be packed as advised for epiphytal kinds. If the moss is made very wet, there is danger of the plants rotting. The packing should be left until the last possible moment before they have to be placed aboard ship.

PACKING ROSES FOR INDIA (R. M.).—The best kind of Roses to send to foreign countries are those grown in pots, but they are also very successfully sent from the open ground. The best time would be early October. Remove all foliage and cut away entirely all the soft, late growths, and shorten all other growths to 5 inches or 6 inches, or even less. Now make up a thick puddle with water and clayey loam, and dip the roots into this three times, allowing the mud to dry on before repeating the dipping. Cover all the growths with damp moss and also envelop the roots with the same; then roll the whole into three or four sheets of brown paper, and finally into a covering of straw or canvas. Packages weighing about twelve pounds are quite large enough, and these can be taken by your friend in his cabin, provided they are kept away from the heat of the engines. If too bulky, the packages could be all placed in one case and addressed,

"To be kept away from heat of engines." For every 5lb. of Rose plants, at least 6lb. of freshly-gathered, fluffy moss should be used. The more double-flowered Tea Roses are the best for hot countries, although there are many among the Hybrid Teas, such as Joseph Hill and Mrs. Aaron Ward, that would do equally as well.

SOCIETIES.

DUMBARTONSHIRE SWEET PEA SOCIETY.

THIS new society, founded last winter, and which has now upwards of two hundred members, held its first annual show in the Parish Church Halls, Dumbarton, on July 27. The show was excellent, and will doubtless lead to a finer one next year. In all some five hundred bunches were shown, and these exhibited high cultural skill on the part of the majority of exhibitors. Space cannot be allowed for detail, but it may be mentioned that the medal of the National Sweet Pea Society was given to Mr. J. P. Anderson, Lena Bank, Dumbarton, the same gentleman winning the National Sweet Pea Society's certificate. The best vase in the show was of Mrs. W. J. Unwin, and Hercules was the selected one for the certificate.

SCOTTISH HORTICULTURAL ASSOCIATION.

THIS association had its annual excursion on July 27, when a company of about one hundred visited Keir, the residence of its honorary president, Captain Stirling. Captain and the Hon. Mrs. Stirling received the company on their arrival and entertained them to luncheon in a large marquee on the lawn. At the luncheon Captain Stirling gave the toast of "Prosperity to the Association," and expressed his pleasure at the success of the recent appeal for new members. In reply, Mr. W. H. Massie, the president, said that its future was assured, and that Captain Stirling's presidency would be a red-letter one in its history. He extended to their host and hostess the hearty thanks of the members. The weather proving unfavourable at first, Captain and Mrs. Stirling conducted the company through the principal apartments of their stately home, and afterwards, under more favourable weather conditions, the party inspected the gardens and grounds, which, as is well known, are under the charge of Mr. Thomas Lunt, one of Scotland's foremost gardeners. Here they saw abundant evidence of the skill and taste possessed by Mr. Lunt, and much admiration was expressed at the results of his work, supported as it is by a liberal and deeply-interested employer. Before leaving Keir three hearty cheers were given for Captain and Mrs. Stirling.

WESTERN CENTRAL POST OFFICE SOCIETY.

THE exhibition held under the auspices of the above society on Tuesday, July 23, at the Western Central Post Office, Holborn, was the best that has ever been held in the history of the society, and the number of entries created a record. All the classes were well filled and, generally speaking, the produce was good. In addition to the competitive exhibits, the following firms staged groups not for competition: Messrs. G. and W. H. Burch, Peterborough, Roses; Messrs. Fisher and Sons, Croydon, Sweet Peas and Carnations; and Messrs. Martin and Isaacs, Tottenham Court Road, Hydrangeas, pink Spiræas and climbing Roses. In the open classes the first prize for Sweet Peas was won by Mr. Evans of Birmingham; for Roses, by Mr. W. Dunker, S.E.P.O.; and Carnations, Mr. C. W. Rhodes, W.C.D.O. Winners of first prizes in other classes were as follow: Roses, Messrs. Camp and Lovell; Sweet Peas, Messrs. Cripps, Webb and Mills; Carnations, Messrs. Mead, Stagg and Dix; Violas, Messrs. Rhodes, Stagg, Camp and Cavill; Stocks, Mr. Goffee; cut flowers, Messrs. Mead and Stagg; Geraniums, Mr. Cripps; Pansies, Mr. Cavill; Cloves, Mr. Rhodes; and window-box, Mr. Stagg. Boys' class, Master Stewart; girls' class, Miss Miller; lady's spray, Mrs. Miller; vegetables, Messrs. Miller, Taylor and Hayter; fruit, Mr. Dix. The autumn show is to be held on Tuesday, September 17.

BOOKS.

Alpine Flora.*—So large is the circle of flower-lovers that there may well be some to whom Correvon is only a name. To those I would say that among those who have a knowledge of these things, M. Correvon has long been recognised as the greatest living authority on the subject. His articles in the Press have been eagerly read, but his books have all been written in another language, which has given them but a limited circulation in this one-language country of ours. But his latest work on alpine flora has received so much commendation in the English Press that an English edition seemed imperative, and it has now been issued by the

* "Alpine Flora," by H. Correvon and P. Robert. Published by Methuen and Co.; price 16s.

house of Methuen, ably translated and produced. The object of this article is not to criticise the book from the point of view of an expert either in the culture of the flowers treated therein or of that other expert concerned—the book maker or compiler, but, primarily, to draw the attention of your readers to what I believe to be (within its limitations) the best book on the subject. M. Correvon goes to the Swiss Alps and makes them his garden—I have italicised the word "Swiss," as I think it necessary—as although the mention of Alps in the minds of most of us conveys Switzerland, still, there are others; and alpine flowers, as generally understood, cover a great many varieties that are not to be found in this "Alpine Flora," which is apparently confined to the Swiss alpine flora, and therefore many an alpine favourite will not be found in this book, for this simple reason—that it does not grow on the Swiss Alps. I will give an illustration of what I mean. Most flower-lovers have their special favourites among the various species or families. In alpine I have a weakness for the Dianthus and Campanulas. Taking the former, I looked for *D. alpinus*, *D. neglectus*, *D. glacialis* and *D. callizonus*. First of all, among the coloured plates they were *non est*; instead I found *D. superbus* and *D. carthusianorum*. Then, on turning to the letterpress, with the exception of *D. glacialis*, I found the others conspicuous by their absence. What was wrong? *Dianthus alpinus* not to be found in a book treating of alpine flora! And then, after much puzzling, I found the solution. *D. alpinus* is a native of Austria, and is not found on the Swiss Alps, and a similar reason accounts for the absence of my other favourites. To this I was referring when I mentioned the limitations of the book. I think the book should have been named "*Swiss Alpine Flora*." Now a word or two as to the book itself. To begin at the beginning, it is the joint production of Henry Correvon, who is responsible for the letterpress, and is illustrated by Philippe Robert, and has been translated and enlarged by E. W. Clayforth. It is aptly dedicated to Sir Frank Crisp of Friar Park. The arrangement is, briefly, as follows: Two prefaces, one by H. Correvon, who eulogises, and very justly, the work of his translator, and the other by E. W. Clayforth, in which he points out that the scope of the work differs considerably from that of any hitherto published. It is addressed to a wider range of readers, not merely to the cultivator of alpine, but also to those who travel in Switzerland with eyes open to one of the greatest of that country's charms. The latter will find an invaluable companion in the plates, executed after water-colours, by M. Philippe Robert. Of these latter I may say at once that it is difficult to speak of them in too flattering terms. Personally, I can call to mind no better coloured illustrations to any book on alpine. Mr. Clayforth concludes his preface by emphasising the importance of growing alpine from seed. I can, from my own experience, say that my best results have been so obtained, sown *in situ*, so that no interference with the root action ever takes place. After the prefaces follows the introduction by M. Correvon to the original work, in which he sums up his own work in the following words: "This work is not strictly and simply botanical in character, but a collection of things relating to the beauty and the charms of alpine flowers—their claims upon our interest, their poetry—as much as to their adaptation to culture and the ornamentation of our gardens." —H. E. MOLYNEUX

(To be continued.)

The Story of My Rock Garden.*—There is a fascination and charm about this book born of enthusiasm and success in the cultivation of not a few of the choicest of alpine plants—grown under conditions usually regarded as unorthodox, and often, apparently, at first sight not of the best. The author, indeed, has had the courage to go his own way, of making his “rocks” out of concrete, and of telling all whom it may concern—and we know it to be a large and increasing number—how simply the thing may be done. He has been honest enough to tell his readers how objectionable was the “crude staring whiteness” of his concrete blocks in dry weather, and how, better still, in order to secure the colour of sandstone, he has toned down these staring blocks with a solution of ferri-perchloride, 40z. of this being dissolved in approximately a gallon of water, with the result that “a rich yellowish brown colour, most acceptable in contrast to the varying greens of the foliage,” has been secured. Hence at once the eye is relieved, the inartistic and unbeautiful are transformed into the natural, and the plants—some of the loveliest gems of the wind-swept mountains of Europe and elsewhere—in blissful ignorance of it all, are ensnared into an unqualified success. It is now a quarter of a century or more since I first began to preach—then as the outcome of experience—of the “indifference of many alpine plants to rocks, altitude and general conditions of their mountain home life.” And in this little book, full of enthusiasm and success and how to attain it, Mr. Malby verifies it all in substance and in fact. He proves very conclusively—and to the amateur or suburban dweller who desires to follow in his steps the lesson is of the greatest value—that none of these things is really essential to alpine vegetation, and that much of the best may be grown with success, provided the plants be given that depth of soil and grit-charged fissure, cranny or crevice so much beloved of not a few of the plants which clothe the upland mountain slopes of the Alps and other places. Hence in telling the story of his own rock garden, he is telling—quite modestly and without display—how he has fought and won, and, by his own achievements, even if on quite a small scale, how possible it is to simplify such work as to bring it within the reach of all. Obviously Mr. Malby has the gift of keen observation wedded to an artistic temperament, and, having studied his plants, endeavours to provide them with what they require, with no repining as to the impossibility of imitating the natural conditions under which this or that plant may be found, and relying upon daily care and watchfulness—the truest possible zeal—for the not infrequent successful result. In this way, and by adapting a small suburban garden to this particular phase of gardening, the author has done a good work, and writes with special qualifications. Chapter VI., devoted to “special methods of planting,” is particularly valuable and helpful—helpful, by way of detail and plant associations that afford good contrasts; valuable, as in the case of *Ramondia* or *Pyrenean Rockfoil* (*Saxifraga longifolia*), because indicating just how to arrange such things to get the best results. The firm packing of the crevice with soil is regarded as of “great importance,” and one cordially agrees, since no plant, alpine or anything else, could for long exist were its roots in a vacuum. Throughout, indeed, the book reveals the mind of the thoughtful student and worker, one who is guided by results rather than by orthodoxy, while its very suggestiveness, simplicity and tenacity of purpose will assuredly tempt not a few to follow the lead given. On page 33, under “Planning and Building,” the author rightly condemns, “with rare exceptions”

—we are not told what these are—“any upper stone overhanging a lower one.” We agree. It is starvation to some plants; the bane of many. A few plants, *Eritrichium* and the Cobweb House-leeks, may succeed for a time if all else be within reach. Mr. Malby adorns his narrative with a series of photographic reproductions, of which those taken in winter-time, when the plants are “glittering with the jewels of the frost,” are remarkable, if not unique. There are also four coloured plates of alpine plants, charmingly done. The book contains an introductory note by Mr. W. Irving of Kew Gardens.—E. H. JENKINS.

THE EDITOR'S TABLE.

Primulas from Scotland.—Dr. Macwatt of Duns, N.B., sends flowers of a number of *Primulas* which he rightly states are interesting at this season. Among them were *P. saxatilis*, *vitalba*, *venusta*, *ciliata purpurea*, *mollis*, *muscaroides*, and double *Primroses* French Grey and Vieux Rose.

Gladioli from Langport.—The receipt of a box of large-flowered hybrid *Gladioli* from Messrs. James Kelway and Sons of Langport reminds us of the value of these charming hardy flowers at this season. Not only are they useful for garden decoration, but they are excellent for cutting, the buds opening well in water. Messrs. Kelway have done much to improve these flowers during recent years, and all the spikes sent were superb. Among them we were specially pleased with Earl Compton, pale shrimp pink; Duchess of Somerset, large white, with carmine markings; Anthony Longside, large crimson self; and Countess of Suffolk, carmine, with cream markings.

A Book on Mushrooms.—A most useful and practical booklet, entitled “Mushroom Cultivation,” by J. Bide, has recently been brought to our notice. It is written by a thoroughly practical man, and the instructions given are helpful to inexperienced growers, and possibly even to those who have grown Mushrooms for some time. The price of the book is 8d., post free, and it may be obtained from Messrs. J. Pither, Limited, Mushroom-growers and spawn manufacturers, Cowley Road, Uxbridge.

Leamington and County Flower Show.—The heaviest downpour of rain that had been experienced in Leamington for many years heralded the annual show held on July 24 and 25, but, fortunately, by the morning of the opening day, clouds had dispersed and fine weather reigned the whole time, so that with the exception that several exhibitors were compelled to withdraw at the last minute, no ill-effects were felt. As one wandered through the tents it needed no practised eye to see that the exhibits generally were well up to standard, and it is doubtful if a finer show of Carnations has been seen this year. Speaking for the deputation from the Royal Horticultural Society, Mr. Gurney Fowler said they had been most highly impressed with the great number of the exhibits, and had with great pleasure given awards of merit. Alderman Holt, the chairman of the society, had left no stone unturned to induce the county people to visit the show, and at the luncheon made a strong appeal for all possible support to be accorded the nurserymen, as it could not be expected that they should go to the heavy expense of coming there year after year unless some business resulted, and it is satisfactory to record that a good response was made to this appeal. A new feature, for which the committee are entitled to hearty thanks, was the introduction of electric fans in all the tents, an idea that might be usefully copied at other shows.

NAMES OF PLANTS.

Lady Kennedy.—1, *Phlomis fruticosa* (Jerusalem Sage); 2, *Borago laxiflora*; 3, *Taxodium distichum* (Deciduous Cypress).—*Miss M. E. E.*—*Chenopodium Bonus* (Henricus), Allgood.—*A. L. F.*—*Pyrus torminalis* (Wild Service Tree).—*P. H.*—1, *Oenothera fruticosa*; 2, *Sidalcea candida*; 3, *Centaurea montana*; 4, *Lycnis dioica flore pleno* (double Red Campion); 5, *Dicentra formosa*; 6, *Geranium sanguineum*; 7, *Poterium canadense*; 8, *Spiraea Menziesii*.—*H. N.*—Probably *Statice Limonium* (Sea Lavender), but it is difficult to identify such a scrap.—*Farmer*.—1, *Rehmannia angulata*; 2, *Lysimachia punctata*; 3, *Eupatorium cannabinum* (Holy-rope); 4, *Centaurea macrocephala* (Great Knapweed).—*Miss F.*, *Bournemouth*.—*Leycesteria formosa*.

ERRATUM.—In our recent report of the Royal Horticultural Society's meeting we inadvertently mentioned that *Lobelia Blue Bees* and *Dracocephalum Forrestii* were staged by Messrs. H. Cannell and Sons. These two plants, with *Roscoeia capitata purpurata* and *Lilium lophophorum*, were exhibited by Messrs. Bees, Limited, Liverpool.

PUBLICATIONS RECEIVED.

“The Village Homes of England.” Published from the offices of the *Studio*, 44, Leicester Square, London, W.C. Price 5s. net.
“Harrogate,” edited by Gordon Home. Price 1s. net. Messrs. Adam and Charles Black, Soho Square, London, W.
“Dairy Farming for Small-holders,” by James Long. Price 2s. 6d. Messrs. C. Arthur Pearson, Limited, Henrietta Street, London, W.C.
“Soil Conditions and Plant Growth,” by Edward J. Russell, D.Sc. (Lond.). Price 5s. net. Messrs. Longmans, Green and Co., 39, Paternoster Row, London, E.C.
“The Gardeners' Royal Benevolent Institution: Report of Committee, with List of Subscribers.” Secretary, Mr. G. J. Ingram, 92, Victoria Street, Westminster, S.W.
“Rocks and Their Origins,” by G. A. J. Cole. (Cambridge University Press.)

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

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* “The Story of My Rock Garden,” by Reginald A. Malby; price 2s. 6d. London: Headley Brothers, Bishopsgate.

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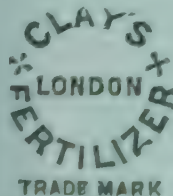
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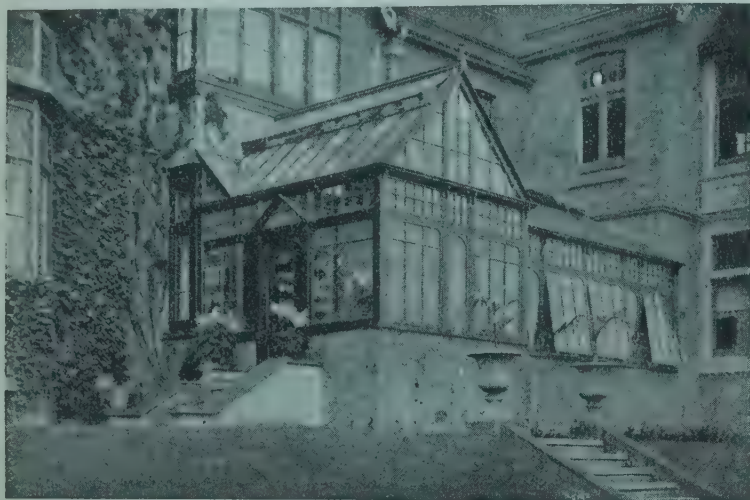
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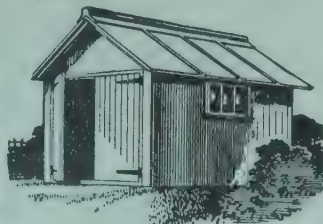
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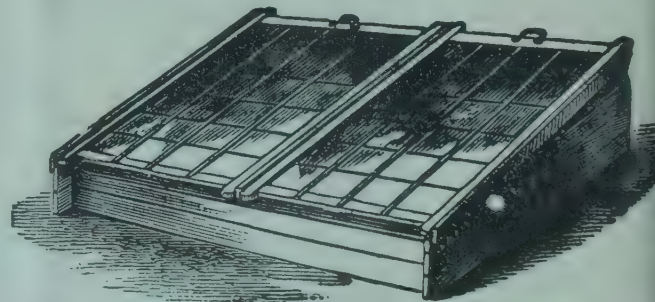
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THE HERBERT CHAPMAN DAFFODILS

Mr. F. Herbert Chapman's Collection comprises a selection of the choice varieties only, including this year, for the first time, a few of his own seedlings which have appeared in prize stands at some of the principal Shows.

Mr. CHAPMAN will be replanting everything left unsold about August 31st, but among specialties, of which a few bulbs each are left, are the following:—

EMBER—A very fine and brilliantly coloured late seedling of Mr. Engleheart's raising, with thick flat wafer eye of solid concentrated red, and creamy-white perianth of good shape. An exhibition flower of great merit, and a most useful plant from the hybridist's point of view ... Each 50/-

HORIZON—A remarkable and beautifully coloured flower; perianth sulphur-white and overlapping, broad flat crown crimped and folded at edge, colour a rare and beautiful combination of deep green and brilliant orange-red; quite in the front rank of the newer Engleheartii ... Each 50/-

IBIS—An enormous round Poeticus, with flat eye suffused with bright crimson; substantial rounded perianth of pure white ... Each 6/-

KINGSLEY—A Poeticus of great size and beauty; broad perianth segments of great substance, and large flat eye bordered with a very wide red band. Raised by Mr. Engleheart. Obtained a unanimous Award of Merit as shown by me at Birmingham in 1910. A simple description of it would be a much glorified Almira ... Each 20/-

MADONNA (Triandrus Hybrid)—It would be difficult to exaggerate the beauty of this remarkable pure white flower. It was raised by Mr. Engleheart from a giant Leedsii of his own raising, and a selected Calathinus seedling. As exhibited by me at the Horticultural Hall on March 5th last, it received encomiums from the daily press, and was popularly voted the finest pure white Daffodil yet raised. ... Each £7 10s

MRS. WALTER WRIGHT (Triandrus Hybrid)—Entire flower of the purest white; broad waxy petals, and solid expanded crown. Selected for good constitution, and a connoisseur's flower in all respects. ... Each £5 5s.

ORNAMENT—A quite new and very beautiful Engleheartii. Flat sulphur perianth and large nearly flat eye richly suffused with strong orange; forces well. Now offered for the first time ... Each 10/-

PERCIVAL—A fine Engleheartii with pale yellow perianth and dark orange crown, expanded and flattened. This is a plant of enormous vigour, with flower stems of exceptional substance, and should be utilised by all hybridists. It has the appearance of being a Princess Mary seedling, and produces enormous well-filled seed pods, much larger than those of any other variety in my grounds. ... 50/- per dozen; Each 5/-

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TENNYSON—A new and beautiful Poeticus of perfect and most refined form; large flower with remarkably broad flat smooth rounded petals, cup large, lemon-yellow thinly and daintily edged with dark red ... Each 50/-

WHITE HART—A Triandrus hybrid of Mr. Engleheart's raising. Cup and perianth pure white, a most chaste and refined flower. Cup slightly smaller than in "Mrs. W. Wright," and the flower perhaps a little more refined ... Each £5 5s.

WHITE WITCH—A refined flower of good substance (a cross between Leedsii and Triandrus) pure white from first opening and a strong healthy grower. Raised by Mrs. R. O. Backhouse, from whom I purchased the entire stock ... Each 12/-

Mr. CHAPMAN'S own home-raised seedlings have taken numerous prizes at the leading exhibitions, and were awarded Silver and Silver-Gilt Flora Medals at the Daffodil Show of the Royal Horticultural Society this Spring. Two or three bulbs each of several of them are for disposal, as under:—

EQUINOX—Well shown on several occasions. Now first offered. A seedling from Princess Mary (seed) x Poeticus Chaucer (pollen). Flower of good form with well overlapping whitish petals and large flattened crown with deep and well-defined ribbon edge of bright red ... Each 63/-

LITTLE BOPEEP—A remarkable Triandrus hybrid, and from an unusual cross, the parentage being Triandrus Calathinus and Lulworth. Very robust and a prolific increaser. Flat white petals, very slightly reflexing, cup citron. The leaves take the form of a shepherd's crook, which fact led me to give it the above name. The dainty and refined flowers, together with the unique foliage, combine to make it a very charming pot plant, and it forces excellently ... Each 63/-

MEMENTO—A bright Parvi, a seedling from Lulworth (seed) x Poeticus Glory (pollen). A taking flower of dainty form and colouring. Rather late. Perianth pure white and slightly drooping, refined cup of bright orange-red ... Each 63/-

SORCERER—A remarkably bright showy flower selected from a batch of seedlings that I raised from Lulworth (seed) x Poeticus Homer (pollen). White slightly reflexing petals and broad flat eye, with very deep margin of brilliant orange-red ... Each 63/-

SPINDRIFT—A beautiful Leedsii-Triandrus which has been prominent in my seedling stands for several years, and which is now offered for the first time. Raised from a cross between White Lady and Triandrus. Large flower with nat white perianth nearly 4in. across, cup very pale citron with distinct snowy white rim, stalk 1 1/2 in. in length. Strong and sturdy in growth and habit, and seems to improve in quality each season ... Each £7 7s.

Several very fine Seedlings, such as Odalisque, Royal Standard, etc., will probably be put into commerce next season.

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THE GARDEN.

No. 2126.—Vol. LXXVI.

AUGUST 17, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

The Nut Crop in Kent.—We understand that the Nut crop in Kent this season is the heaviest that has been known for a great many years. Contract prices that are now being arranged are very much lower than usual; but it remains to be seen whether the consumer will obtain Kentish Cobs and Filberts much cheaper than in past years.

Snapdragons and the Rock Garden.—The value of *Antirrhinums* as plants for the rock garden does not appear to be sufficiently recognised. In the beautiful gardens of Sir Herbert Leon, Bart., at Bletchley Park there is at the present time a low rock garden planted throughout with dwarf *Antirrhinums*, chiefly in yellow and orange tones of colour. This novel rock garden, though simple in design, is very pleasing, and for harmonious blending of colour it would be hard to excel.

Pea Disease in France.—Those who have lost Sweet Peas in this country by the attacks of the fungus *Thielavia basicola* will be interested to learn that it has created great havoc among culinary Peas in France this year. In one centre the crop has been practically exterminated. Although it attacks culinary Peas in this country, they do not appear to be so generally affected as Sweet Peas. It is a pest for which some of our scientists would do well to give us an easily-applied and reliable remedy.

Mimulus Burnetii.—The hardy *Mimulus* appear to be enjoying the wet season, and among them the pretty *Mimulus Burnetii* has been, and is still, very good indeed. It is a hybrid between *M. luteus* and *M. cupreus*, and partakes of the characters of both parents. It has all the hardness of *M. luteus*, with much of the colour of *M. cupreus* and a slightly taller habit than that species. It was raised by Dr. Burnet of Aberdeen. It is perfectly hardy, but dislikes drought, and may be lost in a very dry soil unless kept supplied with moisture.

The Indian Rice.—There are few more decorative water-side plants than this, for it grows to a height of 8 feet or 10 feet, has long, graceful leaves and good-sized, plume-like inflorescences, which are showy for a period of several weeks. Moreover, the plant commands attention by reason of its distinct appearance from the time the foliage is well developed about the end of June until the seeds are ripe towards the end of September. The Indian Rice is known to scientists as *Zizania aquatica*, the common name having arisen on account of the North American Indians using the Rice-like seeds for food. The difficulty of importing seeds in a fertile condition led to its cultivation being dropped in this country for many years. It can, however, be obtained now, and when once grown it need not be lost, providing the necessary care is taken in the collection and preservation

of the seeds. These must be collected when ripe, and either be tied in a piece of canvas and sunk in water or be placed in a vessel of water for the winter. In the latter case the water must be changed once or twice a week. Early in March the seeds must be sown in pots of loamy soil and be stood in water indoors to germinate. Grow in pots, in water, until May; then plant out permanently.

Campanula waldsteiniana.—As one of the most beautiful of alpine Bellflowers this appears almost the last word, and it is certainly one of the most desirable, if at times also a little capricious. The plant is 4 inches or so high; the greyish entire notched leaves, acutely pointed, are about an inch in length. The corollas, which on the stronger stems cluster to the extent of a dozen occasionally, are erect and of a distinct reddish violaceous blue, which, with the conspicuously white-tipped stigma of the early hours of expansion, give the plant a peculiar charm of its own. If given a rather free root-run in a crevice in grit and loam, it will not fail to please. It comes from Hungary.

The Cobweb Plant.—It is doubtful whether the best use is made of this easily-grown alpine, *Sempervivum arachnoideum*. Too often the species and its varieties are seen in clustered masses, which afford but little room for the development of the individual rosettes, and it is just this lack of development which makes all the difference between success and failure. By isolating the rosettes—by pricking them out an inch or so apart—a good opportunity is afforded for full development, and larger and more characteristic groups are the result. In gritty soil or loam and old mortar the plant does well. It is alike good for vertical or horizontal fissures in rockwork, its downy leaves being very attractive.

The Transvaal Daisy.—An interesting and attractive feature is provided at Kew at the present time by a border of this showy South African Composite, *Gerbera Jamesonii*. The border in question is situated at the foot of a wall on the south side of a range of glass-houses, and is thus well drained and warm. That it is peculiarly suited to the plants is evident from their luxurious growth and free-flowering character, and people who are desirous of trying the plant could not do better than copy as nearly as possible the conditions which exist at Kew. On its introduction G. Jamesonii impressed horticulturists favourably with its showy flowers, yet a considerable time elapsed before its cultural requirements came to be fully understood. The hybrids raised from it by Mr. Lynch of Cambridge a few years ago perhaps did more than anything else to popularise it, and both type and hybrids are now to be found in many gardens. Not only as border plants are the *Gerberas* valuable, but few subjects are more charming for cutting for house decoration.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Pruning the French Honeysuckle.—Mr. S. Arnott, whose note on this subject appeared on page 387, August 3, points out that he meant *Hedysarum multijugum* and not *H. coronarium*. This name was originally given in his copy, and was inadvertently deleted to make the paragraph fit in the page.

Exhibiting Carnations.—At the National Carnation Show held on July 23 last, the following remark was made in my hearing by one lady to another about some exhibits of dressed fancy flowers: "Oh, they are no criteria to go by; they don't grow like that." And they passed on to notice those without the "trimmings."—C. TURNER, Highgate.

Roses with Bad Habits.—I won the medal for the best Hybrid Tea Rose at the National Rose Society's show at Ulverston in 1911, the autumn show in 1911 and the Botanic Show in 1912 with Horace Vernet, which "P." includes in his article on "Roses with Bad Habits." These blooms were all from cut-backs, one of them a five year old plant. I find Horace Vernet one of the best as a cut-back.—G. SPEIGHT, Market Harborough.

Rose J. B. Clark.—Having read "P.'s" note about this Rose on page 379, may I recount our experience with this variety, which we have had four or five years. The first two seasons it made tremendously long and strong growths, yielding scarcely any flowers. Then we took up the plant and replanted it in another bed at the other side of the Rose garden, where the position was not quite so good. Before it was replanted its roots were rather severely cut back, the top very little, while a couple of the longest shoots were kept intact and arched over to the nearest plant. Since then we have had no trouble with it not flowering. Last year and this year it has done well. Wherever this variety is making too much top and producing little or no bloom, I would recommend replanting, root-pruning and arching of long shoots as a remedy.—C. T.

Matthiola bicornis.—It is no good, Mr. Editor, I have to write. My nose has been enjoying the delicious perfume of *Matthiola bicornis*, and it says that there may be a whole lot of noses that have never smelt it; in fact, it suggests that they do not even know what sort of a thing it is. Well, it is something very cheap, which, to begin with, is a good thing. It is also something very easily grown; as a big Tulip-grower said to me this spring of Prince of Austria, it is an "any fool's plant." There is no difficulty about it. Put the seed on the ground, lightly rake it in, and Nature does the rest. I bought sixpennyworth this spring, and about mid-May, when all the foliage had died down, I sowed it all over my two blue beds of *Chionodoxas* and *Muscari*. Each is 18 feet long by 5 feet wide. It was ample to cover them entirely, and now every evening and all night long they are a mass of pale shades of purple and mauve, and a veritable active volcano of the most delicious perfume. Many an idle moment in the past fortnight have I spent in gratifying my olfactory organ, and there seems every prospect of many more being spent in a similar way.—JOSEPH JACOB. [We agree with all Mr. Jacob has written about this plant. We have also been enjoying its fragrance for weeks past.—ED.]

Early Chrysanthemums in South-West Scotland.—Among the effects of a peculiar summer such as that of 1912 has been that of dwarfing early Chrysanthemums in the South-West of Scotland, and, for that matter, other districts as well. After seeing a good many gardens where these favourite flowers are grown, and grown well, one is surprised to find how general is the dwarfed character the early Chrysanthemums have assumed this season. In a dry season, such as that of 1911, the effects of high culture were quite apparent, as the plants on well-manured soil were infinitely better than on poorly-cultivated land. This year, however, the free application of manure and the most liberal treatment have failed to form really fine plants, and many varieties which in normal years are among the tallest are this year far below the height of those of medium stature in other seasons. Rather curiously, also, old plants left in the ground which survived the winter are much more vigorous than young ones raised from cuttings as usual.—S. ARNOTT.

Judges Judged.—I am asked to express an opinion as to "whether judges of exhibits at a show may act contrary to the published rules of the society by which competition is invited." My reply to that question must be in the negative. A judge must act strictly within the *wording* of the schedule. See Paragraph 10 of the Royal Horticultural Society's "Rules for Judges," sixth edition, 1908, in which the governing term is set in italics as above for emphasis. In case of doubt, the rule goes on to say that judges should appeal to the show authorities on the question of awarding or withdrawing prizes. I did not see the Sweet Pea contest about which such differences of opinion have arisen, but after over forty years' experience in judging, I am satisfied that Mr. Jenkins is right that the judges had no power to go beyond disqualification; but—for there is a "but" in the case—the same rule of the Royal Horticultural Society above cited goes on to say that though the judges may be forced to disqualify, they may *recommend* the authorities to entertain certain proposals for meeting the case. If this was done and official sanction obtained, it would seem that the result, right or wrong, must stand, though if "A. B. Essex" is accurate in his statement regarding the "breaking of a plainly printed rule," the verdict would be *ultra vires* (beyond one's power or rights), and therefore should be quashed. It is not easy to discuss a case briefly in the absence of relative cognate facts, and as there are numbers of men of my name engaged in gardening whom I have no wish to involve in a controversy, my identity will be sufficiently clear as—JOHN WRIGHT, V.M.H.

—The schedule of a flower show I look upon much in the same light as the captain of a vessel looks upon his chart. It is an instrument carefully prepared (or should be) for the guidance of the committee of management, laid down by its responsible officers, but it is equally a guide, and as binding on the exhibitors and judges. Why, I have known important exhibits of fruit disqualified simply because a trivial mistake had been made of adding one more Peach or Nectarine to a dish than the number stipulated in the schedule. The schedules are studied intently and earnestly for months beforehand by exhibitors, and elaborate care is taken to conform to the letter to the conditions laid down, and any judge, in my opinion, who acts knowingly in contravention of the rules and conditions so laid down in the schedule for exhibitors to work to offends not only against the

exhibitor, but against the authors of the schedule, the managers of the show. If this were persisted in, the same end would come to the show as in the case of a vessel the captain of which disregarded his chart. The principle applies with the same force to exhibitors if they make a mistake of wrongly interpreting the schedule.—OWEN THOMAS.

—In my opinion the rules made by a committee are equally as binding on the judges as on the exhibitors, and no judge should act contrary to the published rules in the schedule.—S. T. WRIGHT, Wisley.

—The question of judges acting independently of, or contrary to, the rules as printed in the schedule of any society is certainly an ultra measure for any judges to take, and if allowed by any society would very soon land it in litigation. The rules printed in the schedule of any society are simply the conditions by which both exhibitors and judges are to be governed in their connections with the society, even if, as is sometimes the case, they are palpably wrong.—J. JAGUES.

—The Editor is good enough to ask me if I would care to express an opinion on this point. I should. I repeat what I said emphatically at the show—that the judges were bound by the schedule, and had no right to do anything with an exhibit containing double standards but to disqualify it. I noticed that in some classes prizes were given after a disqualification, and was told that the reason was that all the competitors were equally culpable. Now, I hate this double-standard rule virulently, but I fail to see why one man should benefit by it while another loses. I agree with the views expressed by my brother, that judges, equally with exhibitors, are bound by the schedule. But, after all, the judges could only make a recommendation; it is the committee which accepted the recommendation which is at fault. I am at one with "A. B. Essex" as to this. I cannot say, however, that I am astonished. I have ceased to be surprised at anything done by the National Sweet Pea Society. I am utterly weary of its follies, and I have already sent in my resignation. The beautiful *coup d'œil* which we have always enjoyed so much at the show was ruined this year by the ugly backgrounds.—WALTER P. WRIGHT.

—In reference to this question, and without entering into the merits of double *versus* single Sweet Peas, I am in full accord with Mr. Wright and his contention in your issue of August 3, page 390, namely, that the rules of a society *are equally binding* on judges, exhibitors and the society that offers prizes, and cannot legally, and ought not in common fairness to the exhibitor, be altered until the prize in question has been won outright, whether it has to be competed for once or a dozen times! To admit that a judge, or a set of judges, may alter the rules of a society to suit an occasion that may arise at any show would be to cut into the bed-rock of sound judging, and cause confusion and vexation to all concerned. Where the rules of a society (clearly stated) have not been complied with, judges have no option but to disqualify, however disagreeable this may be. I think, however, they are quite within their right in *recommending* a special prize to the defaulting exhibit equivalent to the position it would have occupied otherwise, providing, of course, it was not disqualified for fraud. There is room for careful revision in most schedules, as well as for a clear statement of the power and limitations of a judge's duty, and nothing but good can come from an impartial discussion of this subject.—N. F. BARNES, Eaton Gardens, Chester.

Sweet-scented Musk Wanted.—Will you kindly tell me if it is possible to get plants of the old-fashioned strong-scented Musk with small yellow flowers? I remember that one small plant would scent the whole room or greenhouse. I have bought four plants this summer, three in Hants and one in Lincolnshire, all at different nursery gardens, but they have no scent to speak of. Has the strong-scented kind died out, and, if not, where is it to be obtained?—A REGULAR SUBSCRIBER.

[The point raised by our correspondent is an interesting one. We have not seen a scented Musk plant for several years. At a recent meeting of the scientific committee of the Royal Horticultural Society this question was raised by Mr. A. W. Hill.—Ed.]

Abutilons for Greenhouse Roof.—Not long ago a correspondence took place in THE GARDEN with regard to the different purposes for which Abutilons might be employed. Among the various uses was that of clothing the roof of a greenhouse, for which they are particularly well adapted. Any one in doubt upon the subject would do well to pay a visit to No. 4 Greenhouse at Kew, where a plant of the rich yellow-flowered variety, Golden Fleece, is covering an expanse of roof. The specimen is bearing a great profusion of its attractive blossoms, and not only has it been in this condition for a long time, but is likely to continue till the autumn. Not the least desirable feature when Abutilons are used as roof plants is that in the winter, when as much light as possible is an important consideration, the plants may be pruned back hard, to the great advantage of the different subjects underneath. On the other hand, in a genial temperature, Abutilons will, if required, bloom during the winter months.—H. P.

An Interesting Flowering Shrub.—While many of the members in this genus are either trees or climbers, *Cæsalpinia japonica* is remarkable in forming a handsome, though somewhat straggling, shrub some six feet in height. Except in the warmest parts of the country it must be regarded as tender, but given the protection of a wall with a southern aspect it seldom gets injured by frost. This species flowers freely every year at Kew, where plants have been grown in a recess outside the Temperate House for the past ten years. The pale yellow flowers, of which the uppermost petal is striped with red, are borne in terminal racemes on the young growths in June. The shoots, as well as the midrib of the large bipinnate leaves, are armed with stout spines. To flower this plant successfully very little pruning is required; it is, however, necessary to shorten back some of the longest shoots occasionally. *C. japonica* is a native of Japan. It was introduced into this country nearly thirty years ago by Messrs. James Veitch

and Sons, and first flowered in 1887 in their Coombe Wood nursery.—W. T.

FORTHCOMING EVENTS.

August 19.—Fraserburgh Flower Show (two days).
August 20.—Barnsley Agricultural and Horticultural Show.
August 21.—Shrewsbury Summer Flower Show (two days). Caerphilly Flower Show. Weston-super-Mare Flower Show. Margam Flower Show.



A LITTLE-KNOWN WALL SHRUB: *CÆSALPINIA JAPONICA*.

THE ROSE GARDEN.

ROSES WITH BAD HABITS.

(Continued from page 400.)

Marquise de Sinety.—I fancy I can hear some readers saying, "Surely you are not finding a fault in this superb Rose!" but I must reluctantly confess that its open flowers are often very poor in colour and extremely shapeless. I know one could remove them before they attained to this condition, but, still, I wish it had a better finish.

Etoile de France, the parent of so many of our recent red Roses, including Leslie Holland, would be a superb variety if it did not have "fits of the blues." After a few tropical days the colour is glorious, but a succession of dull days will bring out the objectionable tint even in the half-open blooms.

Harry Kirk.—What a grand Rose this would be if we could always catch it right; but, somehow, from a hundred plants one could not cut a dozen good blooms at any one time, owing to so many in the large clusters paling to a very pale straw shade and being woefully thin and ill-shapen. Of course, one could disbud, but then this ought not to be necessary in a garden Rose. Then mildew! What a culprit it is in this respect.

William Shean.—Truly a wonderful Rose when fastened securely to a wire and well displayed upon an exhibition table; but how does it appear in the garden? I venture to say this Rose has disappointed quite a number of enthusiasts, who think more of their garden display than they do of the show-tent for unless the blooms are staked they present a sorry appearance. Personally, I see no more objection to staking Rose growths than doing the same with Carnations, but there seems an objection to it by the amateur grower.

Lady Ursula is another hang-the-head sort, a fault which considerably discounts its usefulness in the garden.

Lohengrin when seen at a show almost compels one to order it by reason of its size, fulness and shape, but it has a peculiar habit of changing colour to a sort of bluish pink, a shade it is impossible to admire.

Mrs. Aaron Ward.—Exquisitely beautiful when it comes its true Indian yellow colour; but far too frequently nearly white flowers will appear, which considerably spoil the effect when the Rose is massed.

Mrs. Stewart Clark is far too vigorous to be used with other Roses, and I fear it has spoilt many arrangements owing to this excessive luxuriance. It may not be a bad habit, but I think nurserymen are to blame in not describing its growth, for it is

Cowbridge Flower Show. Derbyshire Agricultural and Horticultural Society's Show at Derby. Royal Berks Show. Banffshire Flower Show. Callander Flower Show.

August 22.—Aberdeen Flower Show (three days). Peebles Flower Show. Manchester and North of England Orchid Society's Meeting.

August 24.—Cupar Angus Flower Show. Matlock Flower Show. Ealing (Brentham) Garden Suburb Flower Show.

often marked as being "Vig.," the same term being used for, say, Caroline Testout. Grow it as a big bush, as I saw it at its raisers' at Belmont; then it is all right.

Maman Cochet, where it produces one perfect bloom, yields a dozen split or malformed. Is this the fault of the Rose or the grower? I rather think the grower is often to blame, probably by growing it in soil much too strong and rich, or by faulty pruning. I once saw a grand plant upon a south wall, evidently very moderately pruned, and quite a number of the blooms were of good shape. It is very strange that the white sport comes more frequently good in form than its parent.

(To be continued.)

ROSE A PARFUM DE L'HAY.

In spite of its cumbrous name, this is a very useful early-flowering Rose. It is a Hybrid Rugosa, but much nearer the Hybrid Perpetuals with its splendid foliage than Mrs. Anthony Waterer. It is brighter in its crimson colour; in fact, quite near the colour of General Jacqueminot. The flowers are large and double, rarely coming perfect, but when in bud are very pretty, and their fragrance is delicious, quite as unctuous as some of the best Hybrid Perpetuals. Mrs. Anthony Waterer has the unique habit of flowering the whole length of its growth, so that on standards the drooping shoots are quite of a crimson glow. The Rose under notice has not this peculiarity.

These Hybrid Rugosas are very fine things, and should be more frequently planted. If pruned down to about three feet or four feet, they make fine round bushes. This is better than leaving them unpruned, as some do, because then they become rather ungainly in appearance. If we could get a good crimson Conrad F. Meyer, it would be a great gain. This latter upon an east wall has been much admired this year, some of the blooms being quite of exhibition standard.

E.

ROSE BLUSH RAMBLER.

HAD I to be content with one climbing Rose, I should unhesitatingly select Blush Rambler.

Year after year it comes regularly into bloom in June, and is literally smothered with flowers from base to summit. It requires no special treatment, simply needing to be well planted in full sun with a pole or pergola to climb up. Left to go its own way, there is no more pleasing sight in the Rose garden. It is perfectly hardy, and therefore needs no protection in winter. All that it asks for is that the old wood should be cut out after flowering, so as to allow the young shoots to ripen. Blush Rambler has the good quality of not having "bare legs" like so many climbing Roses, it being clothed with foliage, and frequently flowers down to the ground.

Weybridge.

B.

THE GREENHOUSE.

MALMAISON CARNATIONS.

[In Reply to Several Correspondents.]

QUITE recently several of our readers have expressed a desire to know something about the general cultivation of these ever-popular flowers, and as the subject is of seasonable interest, we gladly accede to their wishes. In one instance the request is for information "from cuttings to flowering plants and to flowering them a second year." At the outset we may say at once that experience

is essentially a greenhouse subject, not one to be coddled to death in the close, stuffy atmospheric conditions of an ordinary greenhouse where artificial heat is applied or misapplied without rhyme or reason, but one to which overhead protection at all seasons of the year is an absolute necessity. Of equal importance, if any measure of success is to follow, is an airy structure where condensing moisture—that great creator of the dreaded rust—is a thing unknown. Light, therefore, and a free circulation of air are important factors in the case. Then it must not be overlooked that the Malmaison Carnation plant is nearly or quite hardy—we have, indeed, known the plants to endure for years in the open in both light and heavy

soils—but for the reasons given above, and because the flowers are invariably ruined by wet, its cultivation in the open air is not seriously or generally undertaken. We make mention of the hardiness of the plant, however, to demonstrate that, while requiring overhead protection, it is also quite opposed to artificial heat beyond that which maintains a dry, buoyant atmosphere. The need for artificial heat, then, is chiefly to dispel damp and to secure a temperature of about forty-five degrees or rather more. Hence, unless a house can be devoted to the plants, only such things as are likely to do under similar conditions should be associated with them.

Securing the Plants.—Established pot plants may be secured at almost any season of the year, while the young plants—the product of the current season's layers—are usually available from September onwards. The plants at that time are in 3-inch or 4-inch pots, and will be safe therein till the turn of the days, when a shift to 5-inch or 6-inch pots should be given. Occasionally the young plants are accommodated in a pit or frame, and these, if light and airy, answer quite well for a time.

Soil.—Rich pasture loam—that known as top spit and with a tendency to heaviness—is the best so far as the staple soil is concerned. It should have been stacked some months prior to use, and if manure was added at the time, no further manure will be necessary at potting-time. The

addition of good leaf-mould, with a little soot and sand, will be all that is necessary, though bone-meal at the rate of a 5-inch potful to each bushel of soil is advantageously employed by some.

Potting.—In all the stages the potting must be firmly done. Loose soil about the roots would constitute a fatal error. The soil should be fairly rough, and where a sieve is used, that having an inch mesh will be found quite small enough. The pots should be perfectly clean and dry. New pots, by reason of their moisture-absorbing character, should be soaked in water for a short time, and subsequently allowed to become dry before being used. A free and ample drainage is very necessary.



ROSE BLUSH RAMBLER COVERING AN ARCH IN A WEYBRIDGE GARDEN.

has shown that by far the best results follow when the plants are propagated from layers, and that cuttings are only resorted to by experienced cultivators or propagators and for some specific purpose. In such circumstances, therefore, the cutting system is dismissed without more ado as being unsuitable to the amateur or beginner. The layered plant, on the other hand, and more particularly when established in a pot, is a good foundation, and with such, given attention to cultural details by the way, success may be secured with comparative ease.

Making a Start.—In the first place, we cannot too strongly emphasise the important fact that for all practical purposes the Malmaison Carnation

At potting-time the ball of earth containing the roots should be on the dry side, the potting soil mixture being in a similar condition. Thus arranged, the soil can be firmed with impunity. Not so, however, should the soil be unduly moist, since the necessary ramming would render it adhesive, and therefore uncongenial as a rooting medium for the plants.

(To be continued.)

THE KITCHEN GARDEN.

THE FENNELS AND THEIR CULTIVATION.

THE common Fennel (*Foeniculum vulgare*) is a well-known plant in good gardens where a collection of herbs is grown for culinary purposes. It is a South European plant, and regarded as being indigenous to the coasts of Britain from Norfolk to North Wales. It is used for fish sauces and garnishing. It is a perennial, but a short-lived one under cultivation, especially if it is allowed to flower and seed; but this is not a serious drawback, as it is easily raised from seeds, which should be sown in lines 2 feet apart. Naturally, it enjoys a light, warm soil.

In addition to the above there are two other Fennels which are practically unknown in our kitchen gardens. They are, however, well worth cultivating in good establishments where variety is looked for; and many people who have enjoyed them in Italy are at a loss to know where to get seeds and how to cultivate the plants in this country.

Foeniculum officinale, or Long Sweet Fennel, is closely allied to the above, but is a much stouter plant, with less finely divided leaves. This plant is best grown as a biennial for use during spring, and should be sown during September, in lines 2 feet apart, on light, warm soil. It is generally used raw, the flower-stems being used while they are running up to flower. The Carosella, which is considered such a great delicacy in Naples, is supposed by some authors to be a form of the above, or else closely related to it. The fresh, tender stems, still enclosed in the sheathing leaf-stalks, are broken in lengths and served up raw. The seeds of the above and the common Fennel are used in the manufacture of liqueurs.

Foeniculum dulce, Finocchio or Florence Fennel, is an annual and a native of Italy; it is the most important one for cultivation in this country. Compared with the above, it is a much shorter-growing plant, and very short-jointed at the base. The light green leaf-stalks are very broad at the base, and overlap one another so much at the base of the stem that they form an enlargement varying in size from that of a hen's egg to one's fist; this enlargement is white and sweet inside, and may be eaten raw, but is generally boiled, when it has a sweet, delicate flavour. Its cultivation is quite simple, as seed may be sown about the end of March in drills from 20 inches to 24 inches apart.

When large enough to handle, the seedlings should be thinned out, leaving them from 9 inches to 1 foot apart.

With the exception of plenty of water during dry weather, the plants require no other attention until the enlarged leaf-stalks are about the size of a hen's egg, when they should be half covered by drawing some soil up to them. In about a week or ten days the most forward may be cut for use. If required, successional sowings may be made throughout the summer.

J. C.

THE ROCK AND WATER GARDEN.

A LOVELY WOODLAND ANEMONE.

(*A. APENNINA*.)

THIS is the wild Anemone of Italy, and takes the same place in that country as our own

effect. There are situations in most gardens where this Anemone could be planted and left to take care of itself, when, after a few seasons, lovely pictures, growing in beauty year by year, would result. In thin plantations or woods where the sun can reach it, charming effects may be obtained. It gives increasing proof of its value with each succeeding spring. In beds and borders its starry blue flowers, rising above the deeply-cut leafage, have a delightful effect; but it is when naturalised on grassy slopes or in woods of deciduous trees that it is seen at its best. It spreads its soft blue around the boles of giants of the woodland in yearly increasing breadths, here and there rising through a network of trailing Ivy and holding its own without apparent effort. The sight of a colony of these flowers, clothing a grassy knoll at the foot of a great Oak or Elm with a veil of blue, is a lovely picture on a morning in early spring, the colour-effect being enhanced if Lent Lilies in quantity are associated with them, the pale yellow of the



THE APENNINE WINDFLOWER (*ANEMONE APENNINA*), IN A ROCKY BANK. NOW IS THE TIME TO PLANT.

Wood Anemone does in our copses and woodlands. It is a charming little plant, with downy leaves, divided somewhat like those of *Anemone nemorosa*, and of a tender green hue. The blossoms are sky blue in colour in the interior and paler on the outside, with from ten to twelve star-like divisions, which are narrowly elongated and surround a cluster of whitish stamens. It blooms in April and flourishes in open woods, copses and shrubberies. It thrives best in a porous soil rich in humus. There is a pure white variety and one with dark violet flowers, as well as a double form; but none is as beautiful as the clear blue type. As it may now be procured in quantity at a very cheap rate, there is no reason why it should not be planted extensively in the autumn by all and sundry. To dot it about in small clumps in the beds is a poor way of growing it; but by planting it in the grass we can view it under conditions similar to those it luxuriates in on the Italian sward, and it creates a delightful

Narcissi forming, with the azure of the Anemones, the varied greens of the grass and of their respective foliage, a colour-harmony exquisite in its gradation of tints. Such glimpses as these, obtainable in almost every garden at a trifling cost, are far more satisfying to the eye than the infinitely more expensive and less natural breadths of gaudy bedding plants, to which, later in the season, the greater part of many a garden will be devoted.

A. apennina has been naturalised by the thousand in numbers of English woods, so much so that by some it is considered to be a native plant. Where it is happy and the soil is to its liking, it spreads rapidly, both by seed and by underground stolons, and soon occupies a large expanse of ground. In the rock garden it seems as much at home as when nestling at the foot of some monarch of the glade, and, blooming among the curtains of white Arabis, it is one of the prettiest features of the spring months. In the accompanying illustration it is shown growing at the foot of a steep rocky bank at

the end of a wood, where a few corms were planted many years ago. These have increased to such an extent that they now occupy the whole ground space at their disposal, and are a pretty sight when in flower in the spring, many of the blooms being pure white.

WYNDHAM FITZHERBERT.

CAMPANULA G. F. WILSON.

OF the many charming members of the Campanula family which delight us with their flowers from mid-June and onwards (just when the chief flush of the alpine garden is likely to be waning), that known as G. F. Wilson easily holds a prominent position. In stature it somewhat resembles *C. pulla*, but the foliage is more hairy, and it has much larger and wider, open flowers, while with me at least its constitution is much more vigorous.

The freedom with which it flowers is simply amazing, sheeting that portion of the garden which it inhabits with rich blue, and usually remaining in flower for six or eight weeks. This, naturally, depends on the weather conditions, however,

TREES AND SHRUBS.

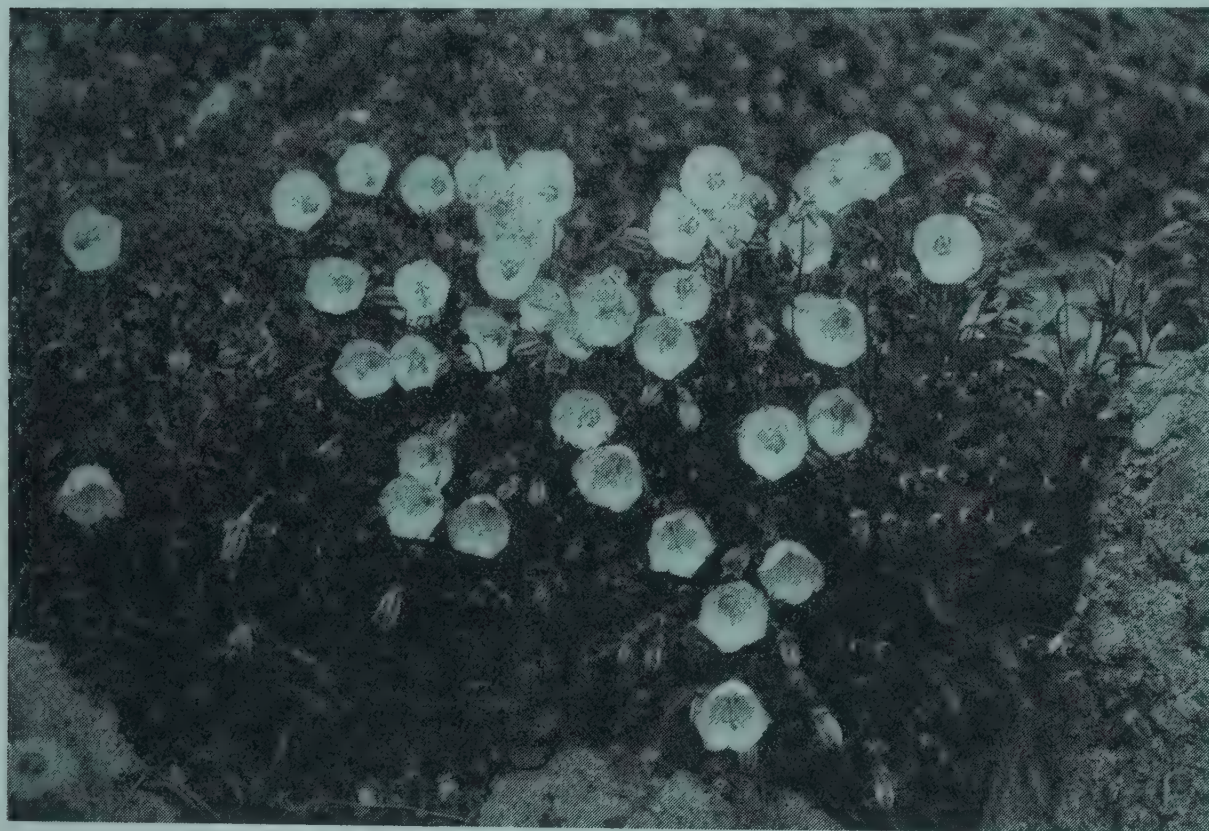
THE BLUE-FLOWERED ABUTILON.

I AM sending you a photograph of the blue-flowered Abutilon, which we have here growing in the open, but sheltered to some extent, as it is in an angle of a wall, protected from north and east.

It was raised from seed and flowered well last summer, after which there were a number of button-like seed-vessels on it, but it did not produce good seeds. This year it has reached a height of nearly thirteen feet. It has been in flower for nearly two months, and was past its prime when the photograph was taken. It has set seed more sparingly this year, but they are round knobs and promise real seed. Any hints as to preserving the plant (I am told the plants always die after flowering profusely) or raising cuttings will be very welcome.

Dangstein, Petersfield.

(Mrs.) M. I. ANE.



CAMPANULA G. F. WILSON, A DWARF PLANT FOR THE ROCK GARDEN.

since heavy rains will sometimes lay the growths on their side and otherwise damage them. In this respect, however, owing to its dwarfer habit (it rarely exceeds 5 inches in height), it is not so prone to destruction as its rather taller relative *C. pulloides*, which with me sometimes suffers rather badly.

I find that any tolerably sunny position in light, gritty soil with some humus added suits this decorative Bellflower admirably, while if it is desired to propagate it, every tiny piece of the cream-coloured underground stems which begin to "push" in myriads in the early part of the year (often about the end of March) will readily root if pulled off, potted up in light soil, and kept moist and shaded, very often flowering profusely the same season.

This plant looks particularly well if planted round the edge of a good-looking lump of stone in the alpine garden, both at its base and up the more or less vertical sides, so that when in flower the stone appears to emerge from a perfect garland of dainty bells.

REGINALD A. MALBY.

[Unfortunately, it is only possible to cultivate this beautiful Chilian shrub, *Abutilon vitifolium*, successfully in the open ground in the milder parts of the country, but in Devonshire and Cornwall it is usual to find magnificent bushes 6 feet to 16 feet high and as far across. Although not a very long-lived shrub, it may be depended on to grow and blossom freely for a number of years, while it is readily replaced by growing young plants from seeds, which ripen freely. Cuttings inserted in pots of sandy soil in a close and slightly warm propagating-frame may also be rooted. When a bush is inclined to become loose in habit, it is a good plan to shorten the branches considerably in February. This will result in more branches and a greater flowering surface. The flowers of *A. vitifolium* are large and showy. On different plants they vary somewhat in colour, but are usually blue or violet, although white ones are known. The same bush may be expected to bloom freely for ten or twelve years, although bushes which have bloomed well sometimes collapse for no apparent reason.—Ed.]

A HANDSOME AMERICAN TREE.

DURING the early summer of the present year, a few abnormal flowers were produced by a specimen of *Cornus Nuttallii* growing in the Arboretum at Kew. Though not in their true character, they were developed sufficiently to show what an attractive plant a well-flowered example must be, while in the autumn the brilliant colour which gradually spreads over the leaves reveals another feature for which the species is famous. Writing of *C. Nuttallii* in the "Silva of North America," Vol. V., pages 70-71, Professor Sargent says: "The flower clusters are more beautiful and conspicuous than the flowers of any other tree of the Pacific States; and in early spring when the great flower scales have grown to their full size, it lights up the dark and sombre forests which are the home of this Dogwood as with a bridal wreath, and as with tongues of flame late in the year, when the beauty of the brilliantly coloured leaves and large heads of bright fruit is often heightened by the appearance of autumnal flowers."

In North America it is found as a moderate-sized tree 40 feet to 60 feet high, or, when growing under the best conditions, 100 feet in height, with a trunk up to 2 feet in diameter. Its ovate leaves are from 4 inches to 6 inches long, 2½ inches to 3 inches wide, and downy on the under surface. The small yellowish green flowers are borne in dense round heads, which are conspicuous by reason of the four large white bracts which surround each head. In autumn the buds for next year's flowers may be recognised at the points of the shoots. During September the leaves assume a bright red hue and are very conspicuous. In America it is said to luxuriate in moist but well-drained soil beneath the shade of coniferous forests at an elevation of 3,000 feet to 5,000 feet above sea-level. The wood of the trunk is stated to be hard, strong, close-grained, and suitable for cabinet-making and for turning into small articles.

W. D.

THE FLOWER GARDEN.

SWEET PEA NOTES.

Sutton Green and Hinckley.—I think everyone is now agreed that the duplication of the National Sweet Pea Society's trials was an excellent step on the part of the committee. Curious differences were observable in the same varieties at the two places, a stock being mixed at one and true at the other; but this does not detract from the undoubted practical value of the experiment, which ought to be maintained if within the bounds of possibility. The season has been such an extremely busy one that fewer people than usual were able to go with the two expeditions which started from London; but those who did were more than pleased with the manner in which both Mr. Foster and Major Hurst had carried out the many details in connection with their onerous task. They deserve universal thanks.

Honoured Varieties.—The year 1912 will be notable for the fact that there were scarcely any really outstanding novelties in the trials. I do not desire to suggest for one moment that there was nothing good, but simply that there was no variety which caused all the world and all the world's wife to send forth a song of delight and admiration. The floral committee noted this, and withheld the honour of reserving a variety for a silver medal next year, and did not even go as far as to give a first-class certificate. Does

this mean that we have reached the supreme point in Sweet Pea development, or simply that raisers are lying low for a time with a view to startling us another season? I think that a negative answer must be returned to both of these questions. There is still room for improvement in our favourite annual, and it will come, though the advancement will be slower in the future than it has been in the past, while raisers who have distinct beauties are not likely to hold them back any longer than they are absolutely obliged, for fear that a rival should come along with something similar, but even better, and reap the golden harvest. We are always waiting and hoping for the pure blue and the pure yellow!

Beautiful Whites.—My friend Dr. Hinton of Heytesbury was good enough to send me a short time ago a few flowers of his new white Constance Hinton, which is a real beauty, and will undoubtedly enjoy a wide popularity when it is put upon the market. I dare not go as far as to affirm that it will turn out Etta Dyke, but it is the equal of that splendid variety in more than one respect. In the earliest stages of development there is a green marginal tinge, but this soon passes and there remains a pure white, large, but exquisitely refined blossom. Practically all the stems are fours, and the individual flowers are well set. Constance Hinton did well at both sets of trials, and was much admired. King White, from Messrs. A. Dickson and Sons, Limited, Newtownards, is full of promise, and will certainly be seen again. It was given an award of merit. Stark's Florence Wright Spencer was also excellent.

A Common Variety.—I wish it to be clearly understood that I do not use the word "common" in the deprecatory sense, but to indicate that the variety Decorator, which received an award of merit, came from several sources. It is most aptly named, for there cannot be many varieties which produce a more decorative effect in the row. The plant grows well, is extremely floriferous, and the rich cerise red colour makes it exceptionally conspicuous even in a big collection. Those sending it were Messrs. Dobbie and Co., Messrs. Stark and Son, and Mr. A. Malcolm of Duns, so it is fairly widespread already.

Other Novelties.—Mr. R. Bolton scored with two varieties. One of these is named Agricola, and it is of that peculiar mixture of rose and mauve that does not invariably do itself justice out of doors. It is a bold, handsome flower. The second was the monster lilac rose R. F. Felton. This is so very vigorous that, unless a tight hand is kept upon it, it will assuredly come on the coarse side. Bertrand Deal, named after its owner, rose mauve in hue, and Lady Miller, from Mr. A. Malcolm, palest cream, flushed

apricot, were the only others to receive awards of merit.

HORACE J. WRIGHT.

BULBS FOR AUTUMN PLANTING.

CERTAIN annual events always give me an unpleasant shock, in that they mark the too swift passage of Time. Birthdays are unwelcome milestones in life's journey, and Christmas, once

a death's-head at the feast of summer to remind us we must prepare for next season. It comes when the garden is ablaze with flowers and full of promise for another three months of luxuriance, when every space seems more than filled, and the chief work in hand is tying up those plants coming on and cutting down those going over, to give space and air in the crowded beds. Then suddenly

"Bulbs for Autumn Planting" pulls one up on the curb, and dread visions of lifting those already in the ground and plans for the addition of others fill the good gardener's mind. Many there be, all the same, who are not good, and stifle their consciences with the thought that November is time enough to plant bulbs, and so put off the planning and ordering till then, and frequently December is near when those bulbs get planted.

I feel that I have a mission to such procrastinators and a message for beginners, and that I must proclaim aloud the wisdom of bracing the shocked nerves and grappling with the bulb question now that the catalogues have arrived. By ordering early you get the pick of the bulbs in the best condition for planting, and, also, many kinds, once in the ground, are rooting and improving in strength and vigour, even though they will not appear above ground for many months, whereas they would be losing weight and perhaps contracting diseases even in the best-regulated storehouse.

I am not inclined to sound the trumpet and call you to plant Daffodils, though they need early lifting and planting as much as any; for have not the readers of THE GARDEN a special High Priest of the Daffodil? Is it not our reverend friend's place, not mine, to preach upon that theme? To him, then, I leave the Daffodil and Tulip, his chosen mission field, while I plead for other, less popular plants, perhaps, but not to be omitted in any good garden.

What Shall we Plant?—How many ardent gardeners wail and lament to me every season that they cannot get Winter Aconites, Snowdrops, early Anemones and such plants to grow. Others are enraptured with, if not envious of, a neighbour's clumps of autumn Colchicums, Crocuses or Sternbergias. "I can't grow them," "My soil does not suit them," "All I plant are failures," so they wail; and to them I cry

aloud, "Read and mark, and order at once from your autumn lists."

eagerly looked forward to as a season of pleasant surprises and gifts arranged for us by our elders, now that we are older entails such efforts of organisation and shopping that the sudden realisation that the time has come to begin it all is always a shock to the nerves. A still worse shock for the nervous system is the arrival of the first list of "Bulbous Plants for Autumn Planting." It is

Colchicums.—Remember these produce large, perhaps rather coarse, but handsome leaves in spring, so allow room for them and reckon on their deep, glossy effect among spring flowers in choosing their sites. Then go boldly ahead. The emperor of the family is the pure white *C. speciosum album*,



A GOOD SPECIMEN OF THE BLUE-FLOWERED ABUTILON
(A. VITIFOLIUM). (See page 414.)

one of the loveliest of all bulbous plants, a White Swan Tulip in October. I remember when five guineas were asked—and given, too, by a few lucky possessors of such rarities—for single bulbs; but it is one of the consolations of advancing years to have lived long enough to buy this glorious treasure at the rate of 6s. a dozen. Messrs. Backhouse of York are the benefactors of the gardening world who raised it, and now distribute it at this low figure. The companionship of the rosy lilac typical form helps to show up the beauty of the white one, and if other good varieties can have space allowed them, Bornmülleri and giganteum are two that should not be omitted. The former has very large flowers, lilac, with a conspicuous white centre. The latter is much like speciosum, but has a greenish yellow tube that gives a pleasing finish to the large purple lilac blossoms.

E. AUGUSTUS BOWLES.

(To be continued.)

SOME NEW DAFFODILS.

[See Coloured Cover.]

WITH the exception of Bernardino, all the other Daffodils on the cover of this issue are specialties of

colouring round the cup is Lavender, which was raised by Mr. P. D. Williams, and which first saw showlight at Birmingham some few years since. Little Joan has not such a wide and pronounced edge, but it is a far more shapely flower, and one which would bring credit to the most select exhibit.

Just below it, on the right, is Bernardino, which is, as I always say, one of the *finest of all Daffodils*. I put it in the very front rank. Certain Daffodils we may call unitarians, some duotarians, others trinitarians, as far as they combine in themselves excellences for garden, exhibition and cutting. Bernardino is a trinitarian. Tall, robust, rapid increaser, floriferous and graceful is its character out of doors. On the show-table it has delicacy of colouring, good balance, shapely perianth and a general attractiveness which is catholic in its appeal, while when cut in a partly-expanded state, with a good long stem, and allowed to open in water so that all its beautiful apricot red tints are retained, it is certainly second to none in its loveliness. No one in the future will regret £2 spent on a bulb now. It will always be a great flower.

On the extreme right we have quite a different type, of which there are none too many—drooping

blooms *well* above the foliage, possibly a bit of the “rough-and-tumble” look about it. I have named it Mrs. Gamp. In the letter referred to, enough was said to whet my appetite; and a few bulbs of White Countess are coming this way to try conclusions next spring with my old lady.

It is increasingly difficult to keep pace with the red eyes. I have not seen Red Lady to know her. The fault may be mine and she has exposed her charms to unheeding eyes; or it may be that Mr. Bourne has picked it up out of Mr. Wilson's garden direct, or from his stand, where it would only be under number. The description is very taking, special emphasis being laid on the vivid red cup and the white over-lapping perianth. Mr. Bourne likes good new things. Judging from his excellent little illustrated price-list, he often falls a victim to their charms. It is full of novelties of all prices, from the rich orange-cupped Helios, which I almost think was the most striking flower of the 1912 season—price £15—down to White Countess and Selene, another giant Leedsii for the garden, which can be had, the one for 7s. 6d., and the other (Selene) for 5s.

Mr. Bourne won the gold medal of the Royal Horticultural Society for his collection of fifty at the Daffodil Show at Vincent Square this year. Considering the year, they were a very good lot, but I hear he is not satisfied altogether with his present ground. He has often told me that his wish is to put before his clients none but the best—the best varieties and the best-grown stuff. I know he will make every effort to do so. Hence it would not surprise me in the least to hear that he is seeking pastures *old* in a more favourable part of the British Isles for Daffodil culture than is the neighbourhood of Bletchley. For his own sake, and because he is the son of one whose memory every Daffodil-lover reveres, I wish him God-speed in his venture wherever he may finally settle down. JOSEPH JACOB.

A RARE YELLOW PÆONY.

(PÆONIA LUTEA.)

THIS beautiful yellow Pæony is very little known, except to a comparatively small band of hardy plant enthusiasts. The late Mr. W. E. Gumbleton, one of the most discriminating of flower-lovers in his day, made a special study of the yellow Pæonies for some years, and three years ago we published a coloured plate of the yellow-flowered Pæonia Delavayi from flowers grown by him. P. lutea, of which we give an illustration, must certainly rank as one of the most beautiful of the yellow species. It was found in Yunnan in 1882 and sent to the Museum of Natural History in Paris, and has since been distributed. As it was introduced so far back, it is a matter for no little surprise that it should still remain scarce in cultivation. There are, however, one or two improved varieties in commerce, and the variety major, which surpasses the type in its intensity of colouring, is perhaps the best known. It is also worth recording that a fine double yellow-flowered Tree Pæony which bears the name of La Lorraine has recently been raised by the crossing of Pæonia lutea and a variety of P. Moutan. P. lutea is a hardy species, requiring much the same treatment as the ordinary herbaceous and Tree Pæonies. It prefers a rich soil, and will thrive either under the shelter of a wall or in an open position. The flowering season is late May and June. For garden effect where choice plants are treasured, this gem is deserving of extended cultivation.



THE YELLOW-FLOWERED PÆONY (PÆONIA LUTEA).

Mr. Christopher Bourne. This gentleman, as readers of THE GARDEN know, has embarked in the Daffodil and bulb business, and it is his intention to become known as an introducer of refined flowers. Little Joan, figured in the plate, may be taken as a typical example of the type at which he is aiming. I admired it very much when I saw it on one occasion last spring. As may be judged from its proportions with regard to the others, it is on the small side (diameter of perianth $2\frac{1}{2}$ inches, cup three-quarters of an inch), and I fear would-be buyers will think very little is offered them for their money. But one must be prepared to pay if we want to acquire a novelty, and the delicate pink edge to the pale primrose centre is something which is at present very uncommon. The best-known flower with this pink tone of

or pendulous blooms, with a fairly long cup of red, and with white reflexing perianths. As Mr. Bourne says in his catalogue, they are Fuchsia-like in appearance. In old days we would have called Tritoma a Nelsoni. It has much of the character associated with this now-digested section, and, like them, it is a late bloomer. White Countess belongs to the giant Leedsii; I do not remember having seen it, but from what Mr. Bourne tells me, in a private letter written before I knew anything of this plate, it must be a nice thing. The cup never gets white and the perianth keeps flat. It came from Mr. Wilson, and it is described as a tall, fine garden plant. I know some of this good man's garden Leedsii. One, of which I bought the stock two years ago, is, in my opinion, the best I have ever seen in a garden—massive,

GARDENING FOR BEGINNERS.

HOW TO TAKE AND ROOT CUTTINGS OF BEDDING PELARGONIUMS.

At this season one's thoughts naturally turn to the increase of the different bedding plants for



1.—BEDDING PELARGONIUM SHOOT SUITABLE FOR MAKING INTO A CUTTING.

next year's display. Despite the fact that Pelargoniums are sometimes condemned, they still hold their own as one of the most popular of all subjects for the purpose, and our gardens would certainly be very much the poorer without them. Now is just the time to increase them by means of cuttings, which should be taken with as little delay as possible. In taking cuttings from the flower-beds, an important matter is to take those that will be less missed; that is to say, the bed should, when finished, show but few traces of having been interfered with in any way. At the same time, it may be pointed out that by far the best cuttings are formed of shoots of moderate vigour, as the very succulent ones are more apt to decay, a remark that applies equally to the weak ones that are overshadowed by the upper part of the plant.

Making the Cuttings.—A good length for the cutting is about four inches, and it should be prepared for insertion by making a clean cut with a sharp knife immediately below a joint and removing one or two leaves at the base. When a shoot is closely examined, it will be seen that each leaf has a wing-like scale at the base, which it is necessary to remove, otherwise moisture is apt to collect there and thus prove a seat of decay. In the case of most plants, it is very essential that the cuttings be inserted as soon as possible after being removed from the parent plant; but Pelargoniums form a decided exception to this rule, as they are, especially if rather succulent, all the better if laid out thinly on a bench for twenty-four hours before they are prepared for insertion. One effect of this is that the leaf-scales flag somewhat, and they can then be stripped off without difficulty, whereas when quite fresh the bark may possibly be torn a little in carrying out the operation.

Inserting the Cuttings.—The cuttings being all prepared, it must then be decided whether they are to be put in pots or boxes. This is, as a rule, determined by the question of the space available during the winter, as a greater number can be kept in boxes than in pots. If in pots, a good plan is to put four cuttings around the edge of a pot 5 inches in diameter, as may be seen in the illustration below. Whether boxes or pots are employed, it is most essential that they should be quite clean and effectually drained by placing a few broken crocks or oyster-shells over the bottom, disposing them concave side downwards. The boxes, of course, must have holes bored in the bottom, in order to allow the surplus water to pass away. A suitable compost for the cuttings may be made up of one part each of loam and leaf-mould, with half a part of silver sand, the whole being thoroughly incorporated together, and it will be all the better if passed through a sieve with a half-inch mesh, placing the rough portions which do not go through immediately over the crocks in the pots or boxes. In inserting the cuttings, the dibbler used should not be too pointed, otherwise a space will be left at the bottom of the hole when the cutting is put in its place, and this retards the action of rooting, for it is very essential that the compost is closed around the base of the cutting. Overcrowding, too, must be guarded against, while, on the other hand, it will be necessary to economise space as much as possible. By some a layer of clean sand is placed over the surface of the soil before the cuttings are put in (this was at one time universally done), but it has one great drawback, namely, it is difficult to ascertain the state of moisture underneath. For this reason it is by many discontinued.

After-Treatment.—The boxes or pots being thus filled with cuttings, they may be watered through a fine rose and stood in a sunny spot out of doors. If there is a frame available, so that they can be stood therein and the lights put on in the event of very heavy and continuous rain, so much the better. Still, it is not often needed at this time of the year. So treated, they will not take long to root, when, if there is plenty of space available

for the winter, they may be potted off singly; but where the question of room at that season is,



2.—THE CUTTING PREPARED FOR PLANTING.

as in most cases, a consideration, they may be left in the pots or boxes till the spring. During the winter, whether potted singly or not, they should be given a good light position in a structure safe from frost. The soil must be kept fairly dry, though not parched up, and the plants be frequently examined in order to remove any signs of decay. A shelf in the greenhouse is a very suitable place for these young Pelargoniums during the winter.

H. P.

BLACK CURRANTS AFTER FRUITING.

I HAVE seen amateurs cut off the tops of the branches directly the fruit has been gathered, with the result that young shoots grew and formed tufts at the end of each one, effectually excluding the light from the centre of the bush. This bad practice unduly excited growth of a useless nature at a time when the wood and leaves should be maturing. Very old branches must be cut out now to admit light and air to the younger ones; then the latter will bear more and finer fruits next year. B.

GREENING SEED POTATOES.

MANY readers of THE GARDEN will now be selecting some of the Potato tubers for seed purposes next year. Indeed, all seed tubers should be picked out soon after the crop is lifted, and stored by themselves in cool, dry, well-ventilated buildings where plenty of light can reach them, but be safe from frosts. Before storing them in such places, however, the tubers, which should weigh from 2½ oz. to 3 oz. each, should be spread out thinly and exposed to the sunshine and light generally, under frame-lights or in an open shed. When thoroughly greened they will keep well through the winter.

SHAMROCK.



3.—FOUR CUTTINGS PLANTED AROUND THE SIDE OF A 5-INCH POT.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Lilium candidum.—The common white or Madonna Lily oftentimes thrives much more luxuriantly in cottage than in any other gardens, and does not seem so prone to disease. Recently I noticed a very fine effect caused by intermingling this subject with the scarlet *Lychnis chalcedonica*. The planting should not be deferred any later than possible. Have the ground well dug, selecting a piece of ground fairly porous and in good condition; while if the ground is heavy, add some light material, such as leaf-mould and road scrapings. Plant 5 inches or 6 inches deep, sprinkling a little powdered charcoal round each bulb.

Verbenas.—When grown in conjunction with other plants or separately on a sunny border, these plants make a striking display and are very effective, particularly for ribbon borders. The growths require to be periodically pegged down. Now is a good time to take cuttings for next season's display. Young growths taken off will soon root if dibbled fairly thickly into 5-inch pots containing a mixture (passed through a fine sieve) of loam, leaf-mould and plenty of sand. Make firm and stand in a cold frame, give a good watering in, keep close, and shade from bright sunshine.

Phlox decussata.—The varieties of these have been particularly fine this season and created a fine display, due, no doubt, to the occasional showers throughout the season, drought, especially on light soils, being fatal to their well-doing. Propagation may now be carried out and the cuttings treated the same as Verbenas, or dibbled into a shallow frame and kept close.

The Rock Garden.

Sedum kamtschaticum.—This is a fine plant for the rock garden and for planting beside paved walks at this season of the year. The growth is vigorous and the flowers are produced with wonderful freedom. Commonly known as the Orange Stonecrop, the orange yellow flowers are very conspicuous against the large green foliage. *S. glaucum* has also been an attractive plant and smothered with flowers.

Tunica Saxifraga flore alba pleno.—This is unquestionably one of the finest plants of recent introduction for the rock garden, and will become deservedly popular, particularly for its free and continuous flowering from early until late in the summer. The flowers are pure white, double, and graceful in habit, and the plant seems perfectly free in a dry season such as the last, but is also well able to withstand heavy rains.

Micromeria Douglasii.—For trailing over rocks or a wall, this North American plant is well adapted, being remarkably free in growth and of a trailing habit. The flowers, though rather inconspicuous, are, nevertheless, sweetly scented and of a whitish colour.

The Shrubberies.

Ceanothus azureus.—For flowering during this month there are several excellent varieties of this shrub, and two with which I am well acquainted and highly meritorious are Indigo (a variety with deep indigo flowers) and Perle Rose (a variety with large trusses of rose-coloured flowers). Another shrub of great merit is *Perowskia atriplicifolia*, the spikes of blue flowers contrasting well with the silvery tomentose foliage.

Plants Under Glass.

Early-flowering Bulbs.—The catalogues are now coming in freely, and I would advise the early ordering of those bulbs at least that are wanted to flower soon after Christmas or before, such as Roman Hyacinths, Narcissi and Tulips, and upon their arrival unpack them and store in a cool, dry position until potting or boxing is done. Almost any old potting soil may be utilised, but for preference a mixture of loam, leaf-mould, spent Mushroom-bed manure and coarse sand.

Chrysanthemums.—Those growing for big blooms will now need liberal feeding to build up the buds that are retained, varying the stimulants as much as possible. With artificial manures I think the better plan is to mix them in the water before applying. This is best done by gradually moistening and mixing in a pail of water, then stirring the contents into the bulk to be used.

Through constant waterings the surface-soil becomes sour, and when removing weeds lightly aerate the surface. If there is room, apply a little rich top-dressing. Keep the growths tied up as becomes necessary and remove superfluous shoots.

The Kitchen Garden.

Cauliflowers.—Between this date and the end of the month, according to the locality, is the best time to sow for plants to stand the winter, though in the South-West the first week in next month may not be too late. Select a suitable seed-bed, as previously advised, make a fine tilth and sow evenly but not too thickly, keeping the surface moist in the event of dry weather.

Cucumbers.—Make a sowing now for supplying fruits during late autumn and winter. Raise the seed, as previously advised, by sowing singly in small pots, and plunge the pots in a warm house. When germinated, elevate near to the glass. For this crop it is well to plant in a house that can, when necessary, be supplied with plenty of fire-heat, and also admit the maximum amount of light, otherwise the growth will be weak and fruitless.

Autumn-sown Onions.—For spring and early summer use the autumn-sown or Tripoli Onions are particularly useful, and I would certainly recommend a small bed being sown in any garden. If seeds are sown too early, the plants are liable to run to seed, but about the 20th of this month is a good date. Have the ground well worked, add plenty of soot and wood-ashes to the surface, and rake down finely before drawing the drills. White Leviathan, White Emperor and Giant Red Rocca are all good varieties, the latter keeping well.

Fruits Under Glass.

Strawberries for next season's forcing should by now be getting well established in their pots in which they will fruit. Keep the plants free from weeds and the runners picked off, but only in the case of leaves that are absolutely dead remove the foliage. Keep the plants well watered and damped over in the evening on warm days, and see that the pots stand quite clear of one another, so that the crowns may become well ripened.

E. BECKETT, V.M.H.

Aldenharn House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Sweet Peas.—These have made extraordinary growth, and it will be worth consideration whether or no to relieve the plants, at least of the top-most shoots, which otherwise will collapse and to a great extent spoil the effect for garden decoration.

Hollyhocks.—So far, the rust disease has been less troublesome than in some years, but it usually makes much progress once cooler nights arrive. The affected leaves should be removed every few days. See that the flower-stems are well secured, and the tips may be pinched out of the tallest, which will be effective in making the lower blooms finer. If seed for another year's stock has not been sown, it may still be done. If sown later the plants are very late in flowering.

Carnations are now in full bloom, and will from time to time need attention to remove the decayed flowers. Continuous-flowering varieties, such as the old Raby Castle and Duchess of Fife, will also need attention to see that the supporting sticks do not give way, and to tie the later stems loosely in before they fall over. Early layers will be well enough rooted to transplant. Nothing is gained by leaving them, because the roots spread a good deal, and a less well-rooted plant results if left too long. Belated shoots may yet be layered, but usually these must be wintered in pots, being too late in rooting for autumn planting, for which early-layered plants alone should be used.

The Wild Garden.

Bocconias.—There is no better time than the present for curbing the habit for over-extension displayed by these. The parts to be removed are first severed from the mass to be kept by means of a sharp spade, and the underground shoots, being first eased with a fork, are not difficult to draw out of the ground. The tall Eastern Polygonums are even more inclined to overrun bounds, and they may be treated in the same manner. Cutting down the stems only delays for the moment

what must be done later, when the operation can be less easily and perfectly executed.

Campanulas.—The seeded shoots of *C. latifolia* and any others of an allied habit should be removed forthwith, not only on account of appearance, but because the seeds germinate so freely as to become a nuisance. Caution must also be exercised with the Umbelliferae. *Heracleum*, for example, if left to shed seed, is almost impossible to keep under, dressing the superfluous plants with sulphuric acid, which must be applied singly, being perhaps as satisfactory a way as any. Foxgloves, as a rule, may be left to themselves, also *Honesty*. Any time from now strong seedlings of various plants may be introduced.

The Vegetable Garden.

Mushrooms.—Where material for forming Mushroom-beds is to be had, a commencement may now be made for a bed to come into bearing in October. The chief care is to see that the material is not overheated, which not only produces inferior Mushrooms, but considerably shortens the time of bearing.

Cucumbers.—Though early plants are still bearing, it is desirable to provide for autumn and early winter by sowing enough seeds to produce plants for a fresh stock. The plants in crop will now ask for some artificial heat day and night to induce the continued production of new growth. Water at the root will possibly need to be curtailed, and overcropping should be strictly discountenanced.

Tomatoes.—Provision for an early crop next year must now be made. This may either be done by sowing seeds or by cuttings, which root quite freely, provided they are not killed with too much moisture. The drawback to cuttings consists in the stems getting too hard, which is prevented by careful treatment throughout, and these have the advantage in ripening fruit earlier than seedlings.

Parsley.—Some of the old plants may be cut over to make young growths to come on for spring picking, and the seedlings from a late sowing be thinned to 4 inches or 6 inches apart. Thereafter the ground should be nicely hoed and cleaned. The main crop, if given plenty of space, will now be quite handsome, and will provide splendid material up to Christmas at least.

The Plant-Houses.

Gloxinias.—Those grown coolly will now be in flower, and with seedlings of the present year will be very useful for the conservatory and house decoration. They require rather careful watering, otherwise the foliage and the flower-stems damp. Early-flowered plants may be dried off and placed for the winter under the stove stages.

Cyclamen.—These are now making their last crop of leaves, and those in rather small pots and thoroughly well rooted will be all the better for occasional dressings of manure. Shading, except on very hot days, should be dispensed with. Old plants may be shaken out, repotted and placed in cold frames, kept close, where they will shortly begin to grow. Water must be very sparingly and carefully dispensed until growth recommences.

Chrysanthemums.—Bush plants, if growing rapidly, should be rather under-watered for two or three weeks to harden growth and keep them from growing too tall. Meanwhile, aphids will, in all probability, attack the young expanding leaves, a pinch of Tobacco powder affording a certain preventive.

Hydrangeas.—Young plants intended to be forced early next year should have only a limited supply of water at the root, in order to harden the wood and induce the formation of flower-buds, gradually lessening the supply and keeping the plants quite cool. The foliage also will mature and decay before winter, when the plants will go to rest.

Humeas.—These must on no account be permitted to get dry at the root, which is fatal, and if the pots are stood on a cool, moist bottom it is beneficial to the plants.

The Fruit-Houses.

Peaches.—For the next few weeks these will ripen very fast, and it is of advantage, if it is essential to delay ripening, to shade the trees heavily with mats, which may either be placed in front of the trees trained to back walls or be spread over the glass. The object is to keep the temperature low; consequently it is imperative that something thick, such as mats, be employed.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

WATER LILY (A. L.).—You had better isolate the affected plant, first laying it on a bag or mat and syringing it with an emulsion of soft soap and paraffin, 4oz. of the former and a wineglassful of the latter to two gallons of rain-water. Should the pest occur on the other plants, you should obtain some Tobacco rag and place it in a sack in the tank. By moving the sack from time to time the water will become charged with the juices from the Tobacco, and in time clear off the pest. If only the one plant remains affected, the cheapest way would be to discard it by burning.

LILY DISEASE (J. H. W. T.).—We know of no cure of the disease once it gains a footing. It may be kept at bay, or at least prevented from doing material damage, by an early spraying with sulphide of potassium, say, half an ounce to a gallon of soft water. This should not be applied oftener than once in three weeks, and it is important that a light spray syringe, such as the "Abol," be employed to ensure the wetting of both the upper and under surfaces of the leaves. This should be started in May and kept up at intervals till the flower-buds are fully grown. All you can do at the present time is to collect and burn all diseased leaves and stems, and spray the plants once or twice during the season. Anything that is done—lifting and drying off and plunging the bulbs in a bag of sulphur have all been recommended—should be of a preventive order, as the spread of the disease is too rapid once it has taken hold of the plants.

SOWING ANTIRRHINUMS IN THE OPEN (Constant Reader).—You ask whether you may take the recommendation to sow these in the open—recently made in THE GARDEN at page 353—"seriously," and whether you "may depend upon plants so raised for your summer bedding?" Certainly you may! We have not only implicit faith in our contributor in such matters, but of our own knowledge know that the results stated are easy of accomplishment. The Snapdragon is virtually a hardy perennial, and July-sown seeds should, for your district at least, ensure seedlings large enough for going into their permanent quarters in October, or not later than mid-March if you decide to leave them in the seed-bed through the winter. Only in the event of a very severe winter and with late-sown seeds would the seedlings be likely to suffer in the open; hence the need for securing hardily-grown plants as opposed to such as are weak from an overcrowded seed-bed. This latter is the precursor of many ills, and is continued, despite frequent warnings to the contrary. You have failed in the past to get an early flowering by sowing seeds in "spring"—a rather indefinite term—and by reason of your late planting; and seeds sown now would give you no better results if you cannot plant the seedlings till the spring bedding plants are cleared. In such circumstances the case could only be met by potting the seedlings into 5-inch or 6-inch pots, so that their progress be not delayed and the check caused by transplanting be reduced to a minimum. An article on the Malmaison Carnation appears in this issue.

TREES AND SHRUBS.

QUICK-GROWING BUSHES AND TREES (J. F.).—Unfortunately, you say nothing about the size of the garden, and we are unable to give you any sound advice in the circumstances. If you will tell us this and give us also an idea of its position and surroundings, we will give you the names of suitable things. Please say also whether the house is to border the roadway, and, if so, at what distance from it. There are many things which might be planted in the months named. We hope, however, you will proceed cautiously, as the curse of many a garden eventually is the undue haste and density of early planting. The quickest-growing things, those you appear to have in the mind's eye, are not infrequently the most voracious and unbeautiful, and, while robbing the garden soil, prevent the introduction of more ornamental subjects. In any case it would not be wise to plant before the house is built, unless at the boundaries where no interference was likely.

THE GREENHOUSE.

CYCLAMEN AND GRUBS (C.).—The grub on the roots of the Cyclamen is that of the Raspberry weevil. It is likely to be found also feeding on roots of a succulent nature in other pots. The best way is to turn out the pots and pick out the grubs, but possibly you might be able to get rid of them by pouring into the soil (not touching the root) of each pot a few drops of carbon bisulphide. This is a very poisonous compound, very evil-smelling, inflammable and explosive, and must be used with the greatest care. The grub becomes a beetle, which feeds on foliage at night, and may be caught by spreading a sheet of paper beneath plants attacked and shaking them or shining a sudden light upon them.

FRUIT GARDEN.

INJURY TO APPLES (The Rosery).—The Apple trees have been badly attacked by the Apple leaf-curling aphides. It is too late now to do anything. The trees should next year, at the end of February or beginning of March, be sprayed with alkali wash, and if this does not suffice, as soon as aphids appears in the spring spray with a nicotine wash or with quassia and soft soap.

MELON FOLIAGE DISEASED (H. G. N.).—Judging from the appearance of the leaves, we think the plants have been growing recently in too moist an atmosphere. They have also the appearance of having made a too gross and soft growth by having too much soil to grow in. This condition nearly always brings disaster to the Melon at the later stages of its growth in causing the foliage to damp off, as in your case, or in canker. The Melon does not require very much soil to grow in; it likes a heavy loam, pressed as hard as possible, and in its later stages of growth should have free ventilation in fine weather, not too much water at the roots, and a dry, warm air.

STRAWBERRY PLANTS NOT FRUITING (M. G. K.).—Your experience with Strawberries has been unfortunate. We think the hot, dry season of last year is primarily responsible for the failure. The crown of the plants in consequence of the drought failed to develop a free growth of crown buds (flowering buds), hence the failure. We would give them another chance, as there is no reason why they should not flower next year if the runners in the first instance were taken from fruiting plants. Try another plan with a few new runners as follows, and you will have a heavy crop next year. Trench your ground 2 feet deep, add well-decayed manure freely (say, a bushel to a square yard), mix well with the soil and plant in rows 16 inches apart, the plants in the row being 15 inches apart. Instead of planting one plant in the row at this distance, plant three a few inches apart only, treating the three as one plant. Procure strong, well-rooted runners as early as possible, and plant out not later than the middle of July.

PEACH LEAVES (J. L.).—The Peach leaves are attacked by the Peach shot-hole fungus (*Cercospora circumscissa*). The fungus frequently fruits on the pieces of leaf that drop out, so that all fallen leaves should be picked up, and, when spraying is done, the ground below the trees should be sprayed as well as the trees themselves. We think, for spraying Peaches, you would find commercial copper carbonate better than potassium sulphide. It is made by making 5oz. of copper carbonate into a thin paste with water, adding three pints of the strongest ammonia (880), which should produce a clear blue solution, and diluting with forty-five gallons of water. The spray must be applied like a mist, and it is possible it may have to be repeated.

FIG TREE CASTING ITS FRUIT (Ficus Inrestilis).—Figs in gardens have frequently been planted in a haphazard way, with young trees raised from pips or seed. When this is the case, satisfactory crops seldom or ever follow. The best sort to plant out of doors is the Brown Turkey. There are many causes responsible for the Fig tree casting its fruit. The following three are the most common: (1) The overcrowding of the branches in the previous summer at the time when the tree was in full growth. It is a well-known fact in the successful culture not only of the Fig, but of all hardy fruit, that the first essential is that the shoots of the previous year's growth (these are the shoots which produce the fruit) should be well developed, and as perfectly matured as possible, by the end of the summer. Unless these shoots have been well exposed to all the light, air and heat possible during their season of growth, these conditions cannot be secured. See to it that the best shoots on your tree this year are not choked with weak and useless branches, shutting out light and air. Do not hesitate to cut out to their base such worse than useless shoots. (2) Dryness at the roots. Both the wood and foliage of the Fig are of rather a soft and pithy nature, and, therefore, to keep in good health, should not be allowed to suffer from want of water during their season of growth. Trees growing against walls are liable to suffer from drought. Water quickly percolates away into the foundations. Moreover, trees are sheltered from rain by the walls. For instance, a driving rain from the north is little or no use to a tree planted against the south side of a wall, and the same in respect to other aspects. Therefore good growers never fail to give their trees a good deluging of water during the summer, and even in autumn and winter, too, occasionally, using weak liquid manure at each watering. (3) Injury from frost. It frequently happens that the young embryo fruit is damaged by frost. The damage may not be apparent at the time, and the young fruit may grow afterwards to a certain size before this is found out: but the flowers fail to be properly

fertilised, and as a consequence fall. A good way to prevent damage by frost is to have some portable straw hurdles made to fit closely over the tree, which can be placed in position during hard frost in winter, and removed in open weather and replaced again if wanted. The stem and lower branches of the tree should be bedded down with straw or fresh leaves to the depth of 1 foot. This will protect the stem and roots as well. We have had trees covered up for a month or longer in hard frost, and no harm has resulted.

KITCHEN GARDEN.

TOMATO LEAF (W. J.).—The Tomato leaf shows round, greenish blotches, and has the appearance of having been in an over-moist atmosphere, or of having been fumigated while wet.

TOMATO (A. S.).—The Tomato is attacked by the Tomato black-spot disease. All such fruits should be picked off and burned, lest they spread the fungus *Macrosporium solani*, which is its cause. The plants should have attention to watering so that they do not become dry at any time, and now and then a little sulphate of potash should be given, for that tends to harden the skin and prevent cracking.

CUCUMBERS (C. L. de T.).—The temperature has evidently been allowed to fall too low for the Cucumbers, and they have also apparently been growing in sour soil. No fumigation or spraying can counteract these troubles. The little insects could be killed by fumigation with XL All, but dusting with flowers of sulphur would be safer in the Cucumber-house. The fruits are gumming badly, and evidently suffering from bad conditions of growth.

CAULIFLOWERS (F. C. T.).—The Cauliflower has been attacked by the Cabbage-root maggot, a pest which is very prevalent this season, particularly in light soils apparently. In some places the whole of the Cabbage crop has been ruined by it. The grub is hatched from small white eggs, very like those of the blow-fly, deposited by a fly very similar to the house-fly on the roots of the Cabbages and other plants nearly related to them, in May onwards, two or three broods being produced in the course of the year. The grubs feed on the young roots and subsequently burrow into the stem. The pest is very difficult to deal with; but possibly the best means is to sow along the rows sand moistened with paraffin. This must, of course, be renewed at intervals, for the fly attacks the plants at all stages of growth.

MANURING TOMATOES (Anxious).—Do not be too hasty in giving your Tomato plants liquid manure. It is very probable that the pots are not full of roots, or the plants have not begun fully to fruit. Too much haste in using liquid manure is apt to generate coarseness, and often disease. To make liquid manure, put eighteen gallons of water into a large tub, then into that a bag containing 50lb. of pure horse-manure; let the bag be coarse and loosely tied. This should soak for forty-eight hours before being used; or you may obtain half a bushel of poultry-manure or of pigeon-manure, with which is added, in a bag, half a bushel of soot, and soak for the same time. Failing either of these, obtain 6lb. of bone-flour, 4lb. of kainit and 2lb. of sulphate of ammonia; mix these and put into a bag. At first it should not be given to each plant more than once a week. A fortnight later give twice the quantity. At the first watering a pint to each plant is ample.

MISCELLANEOUS.

HONEY DEW (C. S. D.).—The black deposit on the Currant leaves is a fungus growing on honey dew. The honey dew is the product of the aphides which have been feeding upon the Currant leaves. The Currant should be sprayed with Quassia and soft soap as soon as the aphides appear. There will then be none of this unpleasant material upon the plants.

EDUCATION IN FRENCH (Enquirer).—Your desire to gain experience of methods of gardening in France and to acquire a knowledge of the French language is laudable. If you write to the secretary of the French Horticultural Society of London, G. Schneider, Esq., 17, Ifield Road, West Brompton, London, S.W., we have no doubt he will help you in the matter.

HOT-WATER PIPES (W. R. H.).—Although it is against all the theories of hot-water fitting to bury the hot-water pipes in soil, we do not see any other remedy for a situation such as yours. If the trench was filled up with soil to a little distance beyond the wall of the fruit-room, and a small space arranged in the flagstones at either end to allow the escape of any accumulated heat, we think the amount which would penetrate through the 3 feet or thereabouts of soil would be so infinitesimal as to do no harm.

JAPANESE TOY GARDEN (F. T.).—In some parts of your country much use is made of the hardy Heaths, and they are very beautiful and free flowering when rightly used. Of such plants you may select at will, since all are good for the purpose. Of small-growing shrubs you cannot do better than select *Abies pectinata nana*, *A. subalpina compacta*, *Pinus Cembra pumila*, *P. Laricio pygmaea*, *Retinospora obtusa nana*, *Cassia fulvida*, *Veronica cupressoides*, *V. Hectorii*, *V. guthrieana*, *V. pineloides*, *V. carnulosa*, *V. buxifolia*, *V. decumbens* and *V. anomala*, all of which are beautiful. *Yucca filamentosa* and *Y. angustifolia* are both good, and *Genista tinctoria* fl.-pl. should not be omitted. Just what you might employ advantageously would depend on the size of the garden and the space at disposal, though for a sun-kissed spot you could hardly err in any section of Encrusted

Saxifrage. Dianthus Erodium, Campanula muralis, C. garganica, C. g. alba, any of the silver-leaved Achilleas, Rocky Mountain Columbines, Polygonum vaccinifolium and Zauschneria californica would afford beauty and variety till quite late in the season.

NAME OF FRUIT.—S. J.—Gooseberry Gunner.

NAMES OF PLANTS.—F. J. Keep.—Buddleia variabilis veitchiana.—D. D. D.—1, Charles Lawson; 2, Amadis; 3, Rosa pomifera; 4, Tuscany; 5, Félicité Perpétue.—W. B. A.—Ulmus glabra.—Rhagatt.—Rose Tuscany; the other plant is Veratrum or Black Hellebore.

BOOKS.

A Year's Gardening.*—The title is very suggestive of the book, which in large degree is a calendar of a year's work in the garden and greenhouse, taking the days as they come, and giving hints as to requisite or desirable work in "Greenhouse and Frames," "Vegetable and Fruit Garden" and "Flower Garden." Of necessity, the information imparted is of true calendar brevity, and not always of the best type. For example, on July 1 it is suggested under the vegetables and fruits that the "month be started by collecting together all garden rubbish which may have accumulated." Surely in midsummer there is more important work to be done than this! And should not this department at that time be cropped to its utmost? Parallel advice continues on following days, and if important in its day or right place, is surely unimportant now, when every inch of ground should be occupied. In the main, however, the hints given are good and seasonable, and the gardener, whether amateur or professional, will find the calendar portion useful and convenient for reference. Following the calendar part, a few pages are devoted to alpine, rock and wall gardens, and here the author, while still very brief considering the importance of the subject, gives himself a little more rein, pointing out the wrong and suggesting the right. "Lawns: Their Making, Maintaining and Renovation," "Fruit Trees: Training, Planting and Pruning," "Fruit Destroyers and Garden Pests" and "The Vegetable Garden Month by Month" are some of the features of which the book treats in more or less detail, sufficient, indeed, generally to constitute a guide—a finger-post, as it were, by the way. The book, which contains upwards of forty illustrations, concludes with an alphabetical list of flowering subjects, hardy, tender, bulbous and the like, together with brief cultural hints. So far as we have observed, the book is singularly free from errors, albeit the author falls into the common one—common to catalogue and garden book alike—of spelling *Aubrietia* with one "i" only. We notice, too, that certain generic and specific names are hyphenated together without cause, as, e.g., *Hyacinthus candicans*, page 215, and *Lathyrus odoratus*, page 220, &c. The book is copiously indexed and well got up.

Chrysanthemums and How to Grow Them.†—There are thousands of cultivators of the "Autumn Queen," the amateur gardener devoting much attention to it and succeeding in producing every year extremely fine specimens, both as regards blooms and plants. New varieties are being raised every year, and nearly all require special treatment in order to bring them to perfection. Mr. J. L. Powell, the author, has given a great deal of very useful information in the book under notice. He

has studied the requirements of the beginner, advises him when to commence taking cuttings and how to propagate them. The period of growth under glass, the preparation of the soil, watering, and the science and practice of feeding are all subjects ably dealt with. Chapters are devoted to hints on growing plants to bear exhibition blooms, those for commercial purposes and the raising of new varieties. Insects, diseases and remedies are also dealt with. The chapter devoted to "Cultural Hints Month by Month" is one of the most useful in the book, especially to the beginner, and in a future edition the author would be well advised to extend it and give a few more details relative to the work of each month. The scale of points for judging plants is too high, namely: Equality of size and form of plants, 40 points; excellence of bloom, 35 points; foliage, 25 points; total, 100 points. To a novice this scale of points is apt to be bewildering. A total of 10 or 12 points would be sufficient, and half-points should be given. This part of the book should be revised as suggested. The photographs on page 66, showing the taking of the bud, are not clear enough to convey a conception of the work of bud-taking to a novice. These should be replaced by clearly-drawn sketches or better photographs in a future edition. The other photographs showing good and bad cuttings and how they should be inserted, also those showing how plants should be protected, are very good. The illustrations of individual blooms, specimens and groups in houses are very good and instructive. The author has ably dealt with border varieties as well as those for exhibition, and has given selections of varieties for various purposes. Chrysanthemum-growers will do well to purchase a copy of this useful book and study its contents.

Vines and How to Grow Them.*—The Grape Vine actually occupies only a small portion of this book, which is really devoted to references to a great number of climbing plants. "Climbing Plants and How to Grow Them" would have been a more appropriate title. This work is a fairly exhaustive one, dealing with climbing plants generally, both fine foliaged and flowering, and even Tomatoes are included. The author, Mr. William C. McCollom, deals in a very charming literary style with the uses and habits of Vines, when and how to plant, soil and cultivation, supports and trellises, pruning and management, insects and diseases, winter killing and how to prevent it. These are all very important points in the successful cultivation of Vines of all kinds. The book is lavishly illustrated, many of the photographs showing the different habits of the subjects under notice and their usefulness for covering old buildings, cottages, walls, trellises, pillars and stumps, as well as modern dwelling-houses. For such purposes attention is drawn to the proper use of the herbaceous perennial and the evergreen Vines respectively. Much very useful practical information is given; for example, in Chapter II., "When and How to Plant," the sub-titles are: Time to Plant, Spring *versus* Fall, Depth to Plant, Distance Apart to Plant, Transplanting, Holding Vines Over in Pots, Arrangement of Colours, Time of Flowering, Location. Some idea will thus be obtained of the useful information afforded. At the end of the book a list of Vines for special purposes is given, and also a planting table for Vines. In a single line the following appears relative to the Virginian Creeper: Botanical

name, *Ampelopsis quinquefolia*; common name, Virginian Creeper; height in feet, 50; kind of plant, hardy shrub; time of flowering; foliage Vine; colour of flowers; habit of climbing, tendrils and discs; when to prune, early spring; remarks, dozens of varieties, brilliant in fall. There are fifteen pages of such information given in tabular form respecting various kinds of Vines. This is quite an uncommon book, and will afford a vast amount of pleasure to all who become possessed of it.

Annuals: Hardy and Half-Hardy.*—This is the twelfth of the "Present-Day Gardening" series being issued by Messrs. Jack, and of which Mr. R. Hooper Pearson is the editor. It is of a size uniform with those which have preceded it, and is written in a simple, practical style, dealing direct with the plants concerned in a really helpful way. The little volume—it is of about one hundred or so pages—is composed of some light-coloured plates of such typical examples as Zinnias, Marigolds, Sweet Scabious, Dianthus and others, and some five chapters dealing with "The Value of Annuals," "Cultivation," "The Most Useful," those of "Less Garden Value" and "Selections," which in their several ways provide just that information which the plant-lover desires chiefly to know. Chapter IV., which treats of those "Annuals of Less Garden Value," is of much usefulness—the separating of the chaff from the wheat, so to say—rather than to leave the amateur to flounder amid a host of kinds and varieties of which he knows little or nothing. It does not follow that those of lesser garden value have "neither charm nor comeliness, and no beauty to be desired"—far from it—nor does the author even hint at such a thing. But by placing them apart—setting them, as it were, on a lower rung of Popularity's ladder—the author, by awarding to them a second or third prize as distinct from the first or premier group in the case, has in nutshell form rendered a service to all who would grow these flowers. Too frequently in such books only the best is written of, and, of course, the best is good enough for all. But that that "best" might be secured to all, it is equally important that those plants of lesser value be brought into light, even if in negative degree. This, we are pleased to see, has been done. The arrangement of the plants throughout the book is alphabetical; the most ornamental of the species and varieties are given, together with cultural hints, the generic and popular names of each group appearing at the head. In these and in other ways the author, a well-known horticulturist and journalist, has done his part well. In a prefatory note we are rather surprised to see allusion to *Campanula pyramidalis* as an annual, the plant being of strictly perennial duration, often seen as a border subject and flowering annually. The plant, however, has a great decorative value if treated as a biennial. We have never seen it to be of service as an annual, and, indeed, it is not mentioned at page 27 among those of annual duration. We note, too (page 30), that the beautiful varieties of Corn Marigolds (*Chrysanthemum*) Eastern Star, Evening Star and others introduced by Messrs. Sutton are referred to *C. carinatum*, though obviously there is much external evidence of *C. segetum*. Such things are mere details, however, and in no sense diminish the value of the useful volume before us, which we commend to all flower-lovers.

* "A Year's Gardening," by Basil Hargrave. Price 6s. London: Werner Laurie, Clifford's Inn. E.C.

† "Chrysanthemums and How to Grow Them," by J. L. Powell. Published by William Heinemann, London. Price 2s. 6d.

* "Vines and How to Grow Them," by William C. McCollom. Published by William Heinemann, London. Price 2s. 6d.

* "Annuals: Hardy and Half-Hardy," by Charles H. Curtis; price 1s. 6d. London: T. C. and E. C. Jack, 67, Long Acre.

SOCIETIES.

SHOW OF SWEET PEAS AT DUMFRIES.

ON August 6 a show of Sweet Peas and other subjects was held at Dumfries under the auspices of the Dumfries Agricultural Society and in their show-ground. This is the second occasion on which Sweet Peas have been considered at the show, and they proved quite an excellent feature and were much admired. The leading classes were for professional gardeners and for those who had not previously won a first prize for Sweet Peas. In the former class a number of experienced and capable cultivators of Sweet Peas entered and made a creditable display, although the heavy rains of the two previous days had made exhibiting difficult. Mr. C. Murray, Cowhill Tower, brought from the gardens of his employer, Mr. Keswick, a nice lot of good flowers of modern varieties, and was awarded the first prize; second, Mr. R. A. Grigor, Dalswinton, who had very fine blooms; third, Mr. T. Carruthers, Cargenhall. The other leading class also brought out a good competition and some admirable lots. Here Mr. J. Smith, Netherholm House, was first; second, Mr. J. M. Wyllie, Cresswell Place, Dumfries; third, Mr. R. Varney, Greymorin, Troqueer.

WEST DERBY HORTICULTURAL SOCIETY.

THIS society celebrated its coming-of-age exhibition on August 5 in the Rectory grounds, by the kind permission of the Rev. Percy Stewart, president of the society. The entries were well up to the average, although most of the hardy flowers gave evident signs of the stormy weather that had previously prevailed.

This year the interest in the cut hardy herbaceous flowers was enhanced by the gift of a handsome silver challenge cup by Messrs. W. Wright and Son, which was well won by Mr. T. Edgar, gardener to the Rev. Percy Stewart; second, Mr. G. Osborne, gardener to Drs. Tinsdale and Ingle. For twelve bunches of hardy and half-hardy annuals, Mr. G. Osborne took the lead, with Mr. C. Crossthwaite second. Mr. G. Osborne also had the best *Gladiolus*, the leading dozen Roses and twelve vases of Sweet Peas. Mrs. R. S. Shepherd was first for twelve Carnations, and Mr. T. Edgar for the same number of Cactus Dahlias.

For a group of plants arranged for effect, Mr. G. Osborne was the first and only competitor. This exhibitor also led for one foliage plant with a good Croton; and for one flowering plant Mr. Leith, gardener to D. Cunningham, Esq., scored with a well-bloomed Fuchsia. Mr. G. Osborne had the best two Geraniums and two Palms, and Mr. T. Young, gardener to Miss Crossthwaite, the leading six Begonias, three doubles and three singles. For four stove or greenhouse plants, Mr. Osborne again led with fairly good specimens.

For nine vegetables, distinct varieties, Mr. G. Osborne proved the winner, Mr. Leith being a good second. For six varieties, the winners were Messrs. T. Edgar and S. Bashford. Mr. Leith won well with Tomatoes and Cucumbers.

In the class for a dozen vases of Sweet Peas, to which, in addition to the first prize, was added a challenge cup, the prizemen were Messrs. J. B. Nicholls, J. Skitt and R. L. Shepherd. For a dinner-table decoration, the prizes went to Mrs. Young for Carnations, Mrs. Calvert and Mrs. J. B. Nicholls.

The arrangements were in the capable charge of Mr. C. A. Young, chairman, and Mr. J. Clay, secretary.

BLETCHLEY AND FENNY STRATFORD HORTICULTURAL SOCIETY.

THOSE responsible for the management of this society are to be congratulated upon the excellence of their show, held on August Bank Holiday in the grounds of Bletchley Park. The weather was gusty but fine, and visitors came in thousands, chiefly from the neighbouring towns and villages. A more beautiful site for a flower show than the spacious and well-wooded grounds of Bletchley Park it would be difficult to imagine, and the best thanks of the society and visitors are due to Sir Herbert Leon, Bart., for his kindness in granting permission for the show to be held there. Another favour that was much appreciated by the visitors was that the gardens, conservatories and fruit-houses at Bletchley Park were likewise open to the public. Here the visitors had an opportunity of viewing beautiful rock gardens, flower borders, terraces and the kitchen garden. The herbaceous borders were looking their best, and a novel rock garden, beautifully planted throughout with dwarf Antirrhinums, chiefly in yellow shades, was most effective.

The show was in every way a most satisfactory one. The table decorations proved an outstanding and meritorious feature, and the two first-prize tables were deserving of special praise for their harmonious blending of colour. Although competition was generally very keen, there was only one competitor for the prize of £10 for eighteen vases of Carnations. This prize was won by Mr. Cooper, the able gardener to Sir Herbert Leon, who showed an excellent collection of Carnations, perfect in size, colour and freshness of the blooms. The Roses, with the exception of a few that were unmistakably weather-beaten, were remarkably good, notwithstanding the late date. The hardy fruits, particularly small fruits, such as Gooseberries, Red and Black Currants, shown in the amateur classes, were worthy of the highest praise, and in every way a credit to the exhibitors. The cottagers' classes for vegetables brought keen competition from among the cottagers and allotment-holders. The produce, notably Potatoes, Turnips, Cabbages and Onions, reflected

the highest credit on the cultivators, and in the main the produce was staged in a masterful way.

There was another useful side to this show, viz., the competitive classes for honey, eggs, cakes, &c.; while an attractive programme of horse-jumping and cycle-racing was doubtless largely responsible for the crowds that flocked into Bletchley on this occasion.

ROYAL LANCASHIRE AGRICULTURAL SOCIETY.

AUGUST 1 TO 5.

THIS society now includes a horticultural section, which is well supported and much appreciated by the visitors. This year the show was held in Moor Park, Preston, and the entries and exhibits were fully up to the average.

For a group of miscellaneous plants not exceeding 300 square feet, for which four prizes were offered from £25 to £10, there were three competitors. Messrs. James Cypher and Sons, Cheltenham, secured the premier position with a collection of choice and varied plants, in which Palms, Crotons, Orchids, Ixoras and Liliiums played a valuable part; second, Mr. W. A. Holmes of Chesterfield; third, Mr. J. Sharp, Almondsbury.

For twelve stove or greenhouse plants, not less than seven to be in flower, Messrs. Cypher were again to the fore with fine Kentias, Crotons, Ixoras, Statice, &c.

For twelve table plants, Messrs. W. A. Holmes, James Sharp and James Cypher and Sons were placed in the order named.

For twelve stove or greenhouse plants in pots not exceeding 10 inches, Messrs. Cypher were the first and only competitors.

For six Orchids the Cheltenham firm held their accustomed position, having fine plants of *Anguloa Clowesii*, *Lælio-Cattleya wellsiiana*, &c. Messrs. W. A. Holmes and C. Parker of Preston were placed as named. For the single specimen the exhibitors were again in the same position, the premier plant being *Lælio-Cattleya callistoglossa*.

Cut Flowers.—For the best table of 100 square feet, Mr. W. G. Eastham, Preston won the coveted position with a fine lot, including grand Liliiums. Mr. W. J. Garner of Altrincham and Mr. J. Saul of Preston were the other prize-winners.

For a bride's bouquet, Mr. W. J. Garner won with *Odontoglossums*; for a ball bouquet, Mr. W. G. Eastham scored; and for Roses, Mr. P. W. Heyes had the best.

For a dinner-table decoration, Orchids excluded, Mrs. J. Nixon and Miss Newsham were placed as named; for the table, any kind of flowers, Messrs. W. J. Garner and F. Newsham were the chief winners; and for the table of Sweet Peas, Miss Newsham and Mr. J. Nixon excelled.

For eighteen vases of Sweet Peas, distinct, Mr. W. Bond, gardener to J. Herron, Esq., Freshfield, held the leading position with fine spikes. Mr. G. T. Hallett, gardener to Sir R. Graham, Bart., Carlisle, was second, and Mr. T. Hindley, Lymm, third. For twelve vases, Mr. G. T. Hallett was the leader, followed by Mr. T. Leadbetter, gardener to Mrs. S. S. Rigg of Bowdon. For twelve vases, the trade excluded, Mr. F. A. Robinson, Manchester, and Mr. B. Birch were the leaders.

For a collection of hardy perennials, Messrs. Harkness and Co., Bedale, won with a grand bank of flowers well staged, including fine *Gaillardias*, *Papavers* and *Lilies*.

For twelve bunches of hardy flowers, the trade excluded, Mr. R. L. Garnett won.

For a collection of cut Tree Carnations, Mr. C. F. Waters, Balcombe, had a fine lot; and Mr. J. Hathaway, gardener to J. Brennard, Esq., Thirsk, also had an excellent stand.

For twenty-four cut Roses, Messrs. A. Dickson and Sons, Newtownards, won the coveted position, Mr. G. Dickson and Earl of Dufferin being excellent flowers. Mr. G. Gibson was second. For twelve varieties, Messrs. Dickson again led; and for twelve, the trade excluded, Mr. R. L. Garnett was the leader.

Fruit.—For twelve distinct varieties, Mr. J. Gibson, gardener to the Duke of Portland, Welbeck Abbey, won the coveted position, staging in his usual excellent style on velvet. Mr. J. Hathaway was second with a collection of much merit.

For two bunches of Black Hamburgh Grapes, Mr. Gibson was the winner with good berries; and for any other black the same exhibitor excelled with *Madresfield Court*. For two Muscat of Alexandria, Mr. J. Hathaway led with well-coloured fruits; and for any other white, Mr. Gibson won with *Foster's Seedling*. Mr. D. McKelvie, gardener to J. Stone, Esq., Roby, scored in the two classes for the scarlet-fleshed and the green-fleshed Melon.

Vegetables.—For nine distinct varieties, Mr. R. Moss, Preston, proved the winner, and Mr. G. Barrow, Carnforth, second. For six kinds (Messrs. Sutton's prizes), Mr. G. F. Hallett was first; and for six kinds (Messrs. Webb's prizes) the same exhibitor was successful.

The non-competitive exhibits were of considerable interest and most attractive, and greatly enhanced the value of the show.

Gold Medals.—The King's Acre Nursery Company for a contribution of fruit trees in pots well laden with fruits.

Messrs. Blackmore and Langdon of Bath for one of their well-known exhibits of flowering Begonias in many charming shades of colour.

Messrs. A. Dickson and Sons, Newtownards, for cut Roses set up in pillar form and in exhibition boxes. Mr. Edward Bohanne, a new variety, was awarded the society's silver medal and certificate.

Messrs. Dickson, Brown and Tait, Manchester, for a fine collection of Potatoes.

Messrs. Young and Co., Cheltenham, for a fine display of Carnations, artistically arranged.

Messrs. H. B. May and Sons, Edmonton, for a table of Ferns in pleasing variety.

Mr. R. Bolton of Warton for a large display of Sweet Peas.

Messrs. Dickson and Robinson of Manchester for a selection of Sweet Peas and some sixty varieties of culinary Peas, arranged in cones.

Messrs. Sutton of Reading for a varied collection of fruits and vegetables backed with fine spikes of *Gladiolus*, &c.

The Lancashire County Council for fruit trees and culinary Peas in pots, and a variety of vegetables and salads, from their experimental grounds at Hutton.

Mr. J. Saul, Preston, for a pleasing rock garden at the main entrance, in which fountains and pools of water, with flowering Water Lilies and foliage plants, were blended.

Silver Medals.—Messrs. Castle Brothers, Carnforth, for Sweet Peas; Mr. W. Wright, Formby, for Sweet Peas; Mr. H. Middlehurst, Manchester, for Sweet Peas; Mr. H. N. Ellison, West Bromwich, for Ferns; and Mr. S. R. Crompton, Macclesfield, for Pansies and Violas.

Special prizes in the form of silver cups were offered to the most successful amateur exhibitors residing in the county of Lancaster, the following gentlemen securing these coveted trophies: The Rev. A. R. Tomlinson, Bolton-le-Sands, for Sweet Peas; Mr. R. L. Garnett, Wyreside, for cut Roses; and Mr. W. G. Eastham, Preston, for herbaceous and bulbous cut flowers.

SCOTTISH HORTICULTURAL ASSOCIATION.

MR. W. H. MASSIE, the president, occupied the chair at the usual monthly meeting of this association, which was held in their rooms, St. Andrew Square, Edinburgh, on the evening of August 6. There were several exhibits staged, these including the following: Ferns from Messrs. James Grieve and Sons, Redbraes Nurseries, Edinburgh (cultural certificate); a new *Pentstemon*, Mrs. F. Fullford, and spikes of *Kalanchoe flammula* from plants grown in 3-inch pots and raised from leaf-cuttings inserted in July, 1911, from Mr. F. Fullford, Montgomerie Castle Gardens (cultural certificate); some very fine Gooseberries, Strawberries and Black Currants from Mr. Cairns, superintendent of the City of Edinburgh District Committee's Farm at Murieston (cultural certificate); and *Acalypha sanderiana* from Mr. James Fraser, Bonaly Tower Gardens, Colinton, Edinburgh (cultural certificate). Mr. F. Baillie sent some good *Marguerites*, and Messrs. Todd and Co. decorative plants in *Dipsacus Fullonum* and *Onopordon Acanthium*.

The great feature of the evening was an interesting and appreciated discussion on the subject of the "Training and Education of the Young Gardener," this being opened by Mr. Charles Comfort, Broomfield Gardens, Davidson's Mains. Mr. Comfort, as was to be expected, opened the discussion in a very practical manner, and gave a clear exposition of his opinions on the subject. Among other things he advocated early apprenticeship, beginning at fifteen, better both accommodation, a supply of literature, time for recreation, training in a moderate-sized place rather than in a large one, and moving about to various appointments after serving his apprenticeship. Mr. A. D. Richardson, the secretary, then gave an excellent paper on the "Technical Education of the Young Gardener," this being followed by a capital general discussion, in which the members gave expression to their views.

MID-ANNANDALE SOCIETY'S SHOW.

THIS show was held at Lockerbie in conjunction with the Agricultural Society's annual show, and was a highly creditable one indeed. Some disappointment was, however, felt that a number of the entrants were unable to have their exhibits in the Sweet Pea section staged on account of the unfavourable weather experienced for some time before the show. A special tent had been provided for the Sweet Peas, but it was comparatively sparsely occupied, although the flowers shown were of superior quality. In the leading class for twelve bunches, Mr. G. L. Moffat came first with a fine lot of flowers, including some novelties of value. Mr. W. Howie was second with flowers of good quality. Mr. H. Stoddart was highly commended. For six vases, Mr. J. Crosbie was first; and Mr. G. Wilson, jun., led for one vase. Mr. G. L. Moffat won the special prize for six vases without foliage, and Mr. G. Wilson for those with foliage. Mr. Moffat and Mr. G. Wilson, sen., won in the other classes.

In the general horticultural section the show was an excellent and well-contested one, the entries and exhibits showing a considerable increase. In the gardeners' classes there was a highly-creditable competition in most sections. The leading exhibitors with pot plants were Mr. James McDonald, Dryfeholm; Mr. James Tweedie; and Mr. J. Wilson, Eskrigg. The cut flowers were good, as a whole, especially the Roses and Cactus Dahlias, while herbaceous plants were also fine. The leading winners with cut flowers were Mr. T. W. James, Stainton, Carlisle; Mr. J. Henderson, Elmbank, Dumfries; Mr. D. Whitelaw, Lochbarbriggs; Mr. J. Tweedie; Mr. J. Crosbie, Dalswinton; Mr. J. French, Hetland Cottage; Mr. W. Tweedie; Messrs. Adamson and Hunter, Lockerbie; and Mr. James Wilson, Summerville. Mrs. Black, Mayfield, had the best decorated dinner-table. Fruit was very good, especially the Grapes, in which Mr. J. Henderson, Elmbank, was the leading winner, Mr. J. Hiddleston also winning a first. In the other fruit classes Mr. J. McDonald, Dryfeholm, won the principal prizes, Mr. J. Wilson, Summerville, and Mr. J. Wilson, Eskrigg, being also successful. Mr. J. McDonald had the best collection of vegetables. Amateurs showed extremely well, but space will not permit of detail of their classes or the winners.

LEICESTER FLOWER SHOW.

THE twenty-seventh meeting of this very important county show was held in the beautiful Abbey Park of the town on Tuesday in August Bank Holiday week, and, as usual, attracted a huge crowd of holiday-seekers and townfolk. The weather was not of the best, but what of that! The enthusiasm of the Leicester town and county people for their great gala day and flower show knows no bounds, and rises high above such trifles as weather vagaries. The people poured in in their thousands. The show is held under the auspices of the Mayor and Corporation, the Mayor presiding at the opening ceremony. The proceeds of the show, after paying expenses, is devoted to provide music in the various parks in the town during the summer months. Flowers and music—what a happy combination!

The competition in the open classes here is always keen, and so it proved this year. In the tent devoted to groups of beautiful foliage and flowering plants arranged for effect there were four delightful examples set up, completely filling the centre of one large tent. The first prize went to Messrs. J. Cypher and Sons; second, Mr. Holmes of Chesterfield; third, Mr. Manning, Dudley; fourth, Mr. Vause, Leamington.

Roses are always a distinct and important feature of this show, and this year did not prove an exception. In the class for a collection of Roses, Messrs. Hugh Dickson, Limited, Belfast, was first; second, Mr. J. Oadby. In the class for twenty-four, distinct, Messrs. Perkins and Sons of Coventry were first; Messrs. Hugh Dickson second, and Mr. W. H. Frettingham, Beeston, third. For twelve Tea or Noisette Roses, distinct, Messrs. Perkins were first; second, Mr. H. Drew, Longworth, Berks; third, Messrs. R. Harkness of Hitchin. Twelve Roses, distinct: First, Messrs. Hugh Dickson; second, Mr. H. Drew. Twelve Tea Roses, one variety: First, Mr. W. Bentley, Leicester; second, Messrs. Perkins and Sons; third, Mr. W. H. Frettingham.

Much interest is always centred in the open classes for fruit at Leicester, the competition being generally keen and the competitors numerous. It does not infrequently happen that the truth of the old saying, "coming events cast their shadows before them," is occasionally revealed at Leicester in respect to the winners in the fruit classes at Shrewsbury. We shall not be surprised if it proves so this year.

For a collection of nine dishes on a florally-decorated table, Mr. Goodacre was a good first; Mr. Ireland, Newstead Abbey, second; and Mr. Buxton third. There were separate prizes offered for the floral decoration of the tables, Mr. Goodacre being first; second, Mr. Ireland; third, Mr. Buxton.

For a collection of six dishes of fruit, distinct, on decorated tables, the same competitors competed, Mr. Goodacre being first, Mr. Ireland second and Mr. Buxton third. Mr. Goodacre was also first for decoration.

For a collection of Grapes, Mr. Goodacre was first, his Muscats being superb, well-ripened examples; second, Mr. Ireland. In the class for two bunches of black Grapes, Mr. Goodacre took first; second, Mr. F. Durlacher, Thorp Satchville; third, Mr. Ireland. For two bunches of white Grapes, Mr. Goodacre was first; second, Mr. F. Durlacher; third, Mr. Ireland. The classes for single dishes and for hardy fruit were well filled, and the quality of the fruit was generally good.

The exhibits of Sweet Peas were imposing and beautiful, and were evidently much appreciated and patronised by the public.

Vegetables are an important and distinctive feature of this exhibition, more especially in the cottagers' classes. The competitors here are many, and the competition warm and keen, many of the cottagers' exhibits vieing in quality with the professional exhibits.

It is the same at Leicester as at all other important shows in regard to honorary exhibits. Take these away, and the shows would be shorn of their greatest charm and beauty. The committees of flower shows and the public owe the honorary exhibitors a heavy meed of praise and thanks for the great and valuable aid they render in making our flower shows attractive and beautiful, to say nothing of the educational value of such exhibits.

PERTHSHIRE SWEET PEA SOCIETY.

THE annual show of this society was held in the City Hall, Perth, on August 2, when there was a large attendance at the opening ceremony, which was performed by Mr. F. Norie Miller of Cleve. The show was an excellent one and the exhibits very numerous, although the stormy weather of the preceding week had prevented a good number of the entries from being sent. In practically all the classes there was, however, a good competition, and an all-round high quality was to be seen. The classes for nurserymen were good and the display highly effective. The gold medal was carried off by Mr. D. M'Omish, Crieff, and the silver one by Messrs. Thyne and Son, Dundee. In the open classes interest largely centred in that for the Scottish Challenge Cup, presented by the National Sweet Pea Society, and this was won by Mr. J. A. Grigor, Seapark, Forres. Sir John Dewar's challenge cup for twelve bunches was well won by Mr. Shaw, Boquhan. The Rev. H. Mayall, the president of the society, won its silver medal for six bunches. Mr. Grigor was also successful in winning the society's gold medal for the best bunch of seedling Sweet Peas, the silver medal for novelties of 1910 and 1911, and other prizes. Valuable sections are those for growers of limited quantities of Sweet Peas, and the winners in the classes for from 15 yards to 50 yards or clumps included some exhibitors who showed flowers of high quality. The society's challenge cup for nine bunches was won by Mr. J. Bisset, Hillyland, Perth. The medal for six bunches was won by Mr. A. Petrie. In the

classes for still smaller growers the leading award of the National Sweet Pea Society's medal for three bunches was won by Mr. H. Rose, Aberfeldy. In the classes for floral work the chief prizes were won by the Rev. H. Mayall, Mrs. F. Mackenzie, Mr. G. Reid, Miss A. Mechie and Miss S. Henderson. Miss Drummond Hay was first in the Sydenham special class; Mr. J. Machar in Messrs. Thyne's open competition; Mr. J. A. Grigor in Mr. Bolton's special class; and Mr. J. H. Crosbie, Comrie, in Messrs. Dobbie and Co.'s and Mr. Unwin's classes. The show, as a whole, was universally pronounced a highly successful one.

COLDSTREAM SWEET PEA SHOW.

THE Border Sweet Pea Society, Coldstream, which was inaugurated last year, held their second annual show in the Mechanics' Hall on Saturday, and the exhibition far surpassed even the most sanguine expectations. The entries totalled 450, or practically treble those of the society's first show last year. Over forty exhibitors were represented. Although somewhat dashed by recent heavy rains, the blooms of Sweet Peas were remarkably good, and both the cup winners showed lots of outstanding excellence. By winning the open class for twelve bunches, Mr. J. Loan, Bugthrig, not only defended his title to the Landreth Challenge Cup, but won that handsome trophy outright. His varieties included excellent vases of Clara Curtis, Helen Lewis, Mrs. Routzahn, John Ingman, Etta Dyke, Edna Unwin Improved and Mrs. Charles Foster. Mr. Landreth won the Milvain Cup, confined to amateur members. A good stand from Mr. Logan, Castletown, won Dobbie's medal for three bunches. It consisted of Melba, Dobbie's Cream and Mrs. Cuthbertson, the first-named, a large salmon pink variety, being one of the best bunches to be seen in the hall. The medal for seedlings always evokes an interesting contest, and this year it was won by Mr. G. Little, Ladykirk, with a very picturesque novelty which is to be named Ladykirk. It is a dark purple with a violet keel.

CAMBRIDGE HORTICULTURAL SHOW.

THE ninth annual show was held on Monday, August 5, at Cambridge on Mid-Summer Common. The weather being fine, there was a very large attendance. In the horticultural section the exhibits were well above the average, there being a magnificent display of flowers, fruits and vegetables of the highest possible standard. The trade exhibits, although few, were exceptionally good, particularly those of Messrs. Burrell and Son of Cambridge and Messrs. Pigg of Royston, which contained some lovely groups of choice Roses arranged in banks with some fine specimen plants of Ramblers for a background, both receiving awards of merit. Messrs. Barker of Whittleford and Messrs. Gibbs and Son of Fulborn staged some lovely Sweet Peas, and Messrs. H. Edwards and Son of Cambridge had an attractive group of stove and greenhouse plants.

In the open classes some fine specimen plants were shown. R. L. Hudson, Esq., of Pampisford Hall (gardener, Mr. Kirkpatrick), was first for six specimen flowering and foliage plants; while in the classes for Ferns, Fuchsias, Coleuses and Geraniums, Miss Smith, Cambridge (gardener, Mr. F. Allen), was an easy first with some remarkable specimens of the finest quality. For Begonias Mr. P. J. Hall of Cambridge was first for a very fine display.

In the class for groups of stove and greenhouse plants, R. L. Hudson, Esq., was well ahead with a very choice and attractive collection, among which were some fine specimens of Antirrhinums, Crotons, Ferns, Begonias, Clerodendron fallax, Cyrtipediums, Caladiums and Gloxinias.

The herbaceous plants were the marked feature of the show, particularly Sweet Peas and Phloxes, the chief honours in these classes going to Mr. C. Bright, although Mr. M. B. Brewster had a good share, both gentlemen residing in Cambridge. Miss Keynes, Cambridge (gardener, Mr. A. Edwards), was first for a fine collection of Sweet Peas of enormous size; while Miss Smith secured chief honours for a collection of choice hardy annuals.

The table decorations were very artistic and beautifully arranged, Mrs. Hudson, Pampisford, being first, closely followed by Mr. C. Bright.

The fruit and vegetables were good in all their respective classes. R. L. Hudson, Esq., Sir J. Sandys, Miss Keynes, Mr. H. Edwards and the Rev. T. Gwatkins were some of the principal winners, the latter winning the prize offered by Messrs. Sutton and Sons, Reading.

The amateurs' and cottagers' classes were all good, some very fine exhibits being staged, reflecting great credit on the cultivators.

The honey and bee section was good and very interesting, being fully represented. Messrs. Baynes and Co., Cambridge, and Mr. W. Barnes, Exning, were the winners respectively of the silver and bronze medals given by the British Bee-Keepers' Association.

The show was in every way a great success, and great credit is due to the committee, especially to Messrs. W. Stern and E. F. Dant, the former for the capable way he managed the horticultural section, and the latter for the able way he carried out his duty in the bee and honey section, while the other secretaries of the many other sections of the show are quite worthy of the same credit.

ENGLISH SEEDS AT COLOMBO.

AT the recent horticultural exhibition held at Colombo, which is open to all Ceylon, the gold medal for the best general collection of English vegetables was awarded to the produce of Carter's Tested Seeds. Messrs. Carter's customers also secured no fewer than fourteen silver medals at the same exhibition with the produce of their seeds, which, we believe, is a record for one show.

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly exhibition of the above society, held at Vincent Square, Westminster, might very well have been a special show of hardy flowers, for on all sides the visitor found himself surrounded by glorious banks of Gladioli, Montbretias, Pentstemons, Antirrhinums, Phloxes and Delphiniums, while a magnificent display of hardy trees and shrubs sent by the Hon. Vicary Gibbs, and occupying the whole of one end of the hall, came in for general admiration. It was not surprising that Gladioli should have been so well represented, as the newly-formed National Gladiolus Society held its summer show on this occasion.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), Messrs. W. Bates, H. H. Williams, J. Willard, H. Hooper, A. W. Metcalfe, A. R. Allan, A. Bullock, J. Vert, H. Markham, Owen Thomas and Edwin Beckett.

Messrs. S. Spooner and Sons, Hounslow, staged an admirable collection of Apples. Among the best dishes of cooking Apples were Frogmore Prolific, Grenadier, Stone's Apple, Potts' Seedling, Bielo Borodawka, Domino and Lord Suffield. A number of dessert varieties, such as Duchess' Favourite, Irish Peach, Williams' Favourite, Lady Sudeley, Early Strawberry and Beauty of Bath were shown, also the American Blackberry and the Strawberry-Raspberry, making up an interesting collection of early outdoor fruit. Silver Banksian medal.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), Sir Harry J. Veitch, Messrs. James O'Brien, Gurney Wilson, W. Bolton, W. H. White, A. Dye, H. G. Alexander, J. E. Shill, W. P. Bound, W. H. Hatcher, W. Cobb, T. Armstrong, A. McBean and W. Thompson.

There were very few groups brought before the committee on this occasion, but many choice novelties were shown for certificates.

A silver Banksian medal was awarded to E. H. Davidson, Esq., Twyford, for a group comprising good forms of Cattleyas and Laelio-Cattleyas, also Odontiodas. Beautiful plants of Cattleya Venus Golden Glory and Odontoglossum Empress Eugenie were included in this group.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman, and Messrs. C. T. Drury, W. J. Bean, G. Reuthe, R. W. Wallace, George Gordon, J. Jennings, J. Dickson, R. Hooper Pearson, C. Dixon, J. T. Bennett-Poe, C. E. Pearson, W. P. Thomson, E. H. Jenkins, J. Green and C. R. Fielder.

Messrs. H. B. May and Sons, Edmonton, arranged a nice table of shrubby Veronicas in the best varieties, and such as Pearl (pink), Lavinia (violet), Reine des Blanches, Violette, and Le Merveilleux (reddish purple) were among the more distinct. Mont Blanc is, however, the purest white, and Eveline, of rosy red hue, the most pronounced of its colour. Admiration (royal purple) was also excellent.

Mr. Philip Ladds, Swanley, showed a large group of the new pink-flowered Zonal Pelargonium Champion, together with a vase of the white decorative Dahlia Princess Juliana. The Pelargonium is effective in the mass.

The Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett), sent a collection of some three hundred specimens of flowering trees and shrubs, the whole constituting a feature of rare interest across the western end of the hall. A big central group was formed of the pink-flowered Spiraea Douglasii, while around we noted Hydrangeas, Coluteas, Fuchsias, Clematises, Buddleias, Lavenders, Tamarix, Crab, Hypericum, Deutzia (the pretty white-flowered D. corymbosa more particularly), Olearia, Calluna, Leycesteria, Pyrus, Daboecia polifolia alba, Ceanothus, Rubus, Abelia chinensis, Veronica, Myrtle, Coriacea terminalis and much more, in which there was centred either interest or instruction or both. Such exhibits, too, are of value as showing the great wealth and variety a well-ordered hardy plant garden may contain at this season.

Messrs. Stuart Low and Co., Enfield, arranged a group of Carnations, of which Lady Alington and Baroness de Brien were the chief. White Perfection and Carola were also well shown, a few greenhouse and stove plants being installed at one end.

Messrs. R. W. Wallace and Co., Colchester, had some showy vases of nanceanus and other Gladioli in conjunction with Kniphofias, Senecios and Liatris. In addition to these things Messrs. Wallace staged a remarkable series of the newer Montbretias, which are great garden acquisitions. Quite the gem of the lot was Star of the East, a wonderful flower of great size and substance. The individual flower is over four inches across, of a pale blood orange and yellowed base. This remarkable colour in conjunction with the crimson buds render the variety a most striking one, far and away beyond all else in the Montbretia line. Gem (yellow), Comet (a glorified Prometheus), King Edmond (chrome yellow), Hereward and Westwick were other important varieties of this fine group of plants.

Messrs. Cannell and Sons, Swanley, staged many excellent examples of the Rex Begonias, a class of plant too rarely seen nowadays. Maurice Duval, Mrs. H. G. Moon, magnifica and His Majesty were among the more striking. Messrs. Cannell also showed a big group of Coleus in much variety.

Messrs. Aldersey and Marsden Jones, Malpas, Cheshire, had some thirty or more vases of Sweet Peas notable for size, though not for freshness. They had evidently suffered from the cold and wet.

Mr. L. R. Russell, Richmond, had a most interesting table of hardy Fuchsias in some eighteen varieties, the plants shown having stood out in pots in the plunging-beds the whole winter. The best kinds were brightoniensis, Wm. Cornellison, pumila, globosa, corallina (rich in colour

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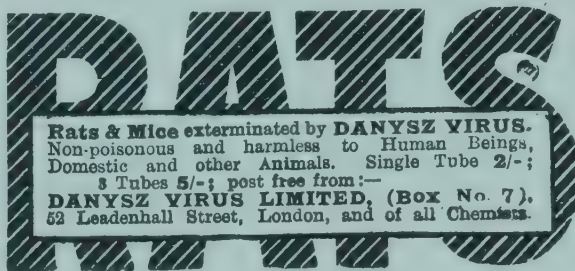
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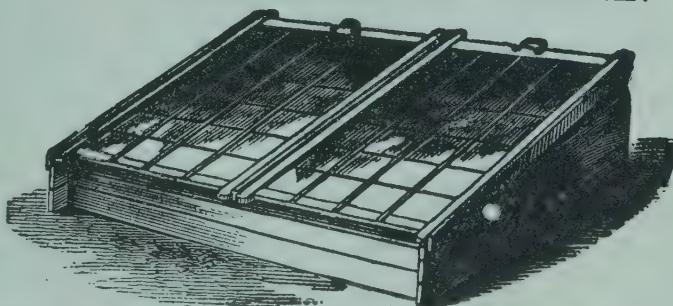
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THE GARDEN.

No. 2127.—VOL. LXXVI.

AUGUST 24, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Office: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Garden Plans Competition.—In connection with the advertisement for plans for a small garden, which appeared in our advertisement pages some time ago, we are asked to state that the winner of the prize offered was Mr. Hugh R. Dixon, 73, Corringham Road, Golder's Green, London, N.W.

Phlox Frau Antoine Buchner.—This pure white Phlox has appealed to one very strongly this season, as much by reason of its handsome panicles as by its purity and good form. It is one to be noted for planting a little later, and, given good culture, will disappoint no one.

Roses in London.—It is by no means an uncommon expression to hear that Roses will not succeed in London, but this is not always borne out by facts. Just now in Hyde Park there is a bed of that grand variety Caroline Testout in first-rate condition, there being a good sprinkling of expanded blooms and a fine crop of buds to follow.

A Beautiful Clarkia.—When visiting the trial grounds of Messrs. Sutton and Sons at Reading a few days ago, we noticed a new Clarkia that is worthy of special mention. This is named Sutton's Double Scarlet, this name being derived from the colour of the flowers, which are a most pleasing shade of glowing rosy scarlet. It has a dwarf, compact habit, and each plant is freely branched, so that it is an excellent subject for the garden as well as for cutting. Grown in pots for greenhouse decoration in spring, this Clarkia would be very charming indeed.

Godetias as Cut Flowers.—Although Godetias are among the most prized of our hardy annuals for garden decoration, we do not remember seeing their merits as cut flowers brought to notice. Owing to the fact that the buds open well in water, Godetias last in good condition a long time when cut. We have had sprays of Lady Satin Rose and Double Rose, a beautiful pink variety, in water for ten days, and they are still quite fresh and pleasing. They are so easily grown from seed, which may be sown in autumn or spring, that they ought to find a home in every garden.

A Little-known Bulbous Plant.—One seldom sees the Puschkinias in flower in the garden of the average amateur. This is probably because one rarely finds a reminder of these little bulbs about the ordering-time, and this is our reason for penning this note at present. They are dainty Scilla-like flowers of graceful growth, as a rule, and of a pleasing white lined with a pretty blue. Of the few species, the one most usually offered is *P. libanotica*, of which there are two forms, *P. libanotica* itself and *P. l. compacta*. The latter is the more prized, but we are not sure

that we do not prefer the type, which has looser flowers. *P. scilloides* is sometimes offered, but one finds the names frequently interchangeable among bulb-dealers. The chief enemy of the Puschkinia is the slug, and bulbs should be planted in light soil about an inch or two inches beneath the surface.

A Notable Bedding Arrangement.—A tone of colour which has caught on with the fair sex of late is a peculiar yellowish terra-cotta. There is now in Hyde Park a couple of beds of a form of *Celosia pyramidalis* which is of just the fashionable tone of colour, and is thereby much admired. It is labelled *Celosia pyramidalis aurea*, but is of a distinct tone from the golden form usually met with. The plants are alternated with small examples of *Kochia scoparia*, and the bed is carpeted with blue *Lobelia*. The general effect is uncommon, but at the same time attractive.

Mesembryanthemum uncinatum.—In many directions this year, in Southern gardens, this pretty plant is flowering profusely, and it is as welcome as a flowering plant could be. The rosy pink flowers which terminate the branches are only rarely seen, and doubtless the great heat of the year 1911 has contributed not a little to their appearing now. The species is of shrubby habit and the whole plant of a glaucous blue, and when planted in a position of full exposure is quite welcome, even without flowers. It is well suited for the rock garden in the sunniest places.

A Beautiful Blue Alpine.—*Wahlenbergia vincaeflora* or *gentianoides* has been certificated under both names during the past few weeks, and is worthy of a note now (mid-August) because of its late flowering, a flowering which began in June and has never abated. Could any lover of alpine wish for more in a slender and graceful plant whose deep sky blue bell-flowers appeal to all? It loves a cool, sequestered spot, and looks exceedingly happy springing from a thin colony of the dwarfest of the crested Hart's-tongue Ferns, the dark green fronds being in delightful contrast to the rich blue flowers.

Campanula Stansfieldii.—This is one of the most valuable and easily grown of the late-flowering Bellflowers of lowly stature. Less dwarf than *C. pusilla* or *C. pulla*—for the plant may on occasion reach to 9 inches or so in height—it is yet of the pigmy class whose growth is of an ascendant character as opposed to those which trail. Pot-grown examples may have the horizontally-disposed bells of purplish blue dangling over the rim of the receptacle named, and very well they look. The plant is a profuse bloomer and most welcome in August. Culturally it might be suggested that it delights in a cool spot, where in sandy loam it will be quite happy.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Thalictrum dipterocarpum.—This is by far the most beautiful plant I have now in flower. It is about three years old, is over six feet high, and has flowers freely produced on longish stalks from the bottom of the plant. It is a most graceful plant, with its long, lavender-coloured flowers. I grow it in a rather damp and sheltered situation, though it has plenty of sun. It seeds and germinates freely, is easily reared and is quite hardy.—GEORGE DIXON, *Astle, Cheshire.*

Sweet Pea King White.—Although this fine new white Sweet Pea is not yet supposed to be "sent out," it has been exhibited in competitive exhibits this year, and, should it continue to show the same form, it will probably hold its own for a long time. As the writer has seen it exhibited it is a very fine flower in every way, and one which is likely to please all who like a white Sweet Pea—and who does not? I must say the name does not appeal to me, but that is nothing in the case of a lovely Sweet Pea suitable for all purposes.—A. M. D.

Eucalyptus globulus.—It is interesting to note that there are two fine trees of *Eucalyptus globulus*, commonly known as the Blue Gum tree, growing on the front of the Ilfracombe Hotel, Bournemouth. Both are long established, and have to be cut back each year owing to their rapid growth over the windows. They are about forty-five feet in height, of very good colour, especially the lower limbs, and very strongly scented. A little stream runs about fifteen yards from their base, into which they have thrown out their roots. They face full south, but are only slightly sheltered from the east winds.—W. A. BATTERSBY, Bournemouth.

Roses with Bad Habits.—The writer of the series of articles on this subject deserves the thanks of everyone who has experienced the difficulty of wading through long lists of names in the endeavour to find out a few that will give the best returns for garden decoration. With regard to Mrs. R. G. Sharman Crawford, my opinion is entirely at one with that of your correspondent, and though I have had some beautiful blooms, it is so liable to mildew that it will have to go. General Macarthur, too, is this season nearly as bad with mildew as the other, and on this account alone I am seriously considering its banishment. Killarney also gives a lot of trouble in this respect. Roses that hang their heads are also a nuisance in the garden, however fine the blooms may look when they are on the exhibition table—the worst of all places from which to make a selection of garden Roses. The fact is that Roses are now far too numerous, and an article from someone, such as your correspondent, on "Too-much-alike Roses" would be of great service to many.—H. P.

Judges Judged.—While the consensus of opinion as given on page 410 of *THE GARDEN* conforms to the principle set forth by Mr. John Wright, V.M.H., that "a judge must act strictly within the wording of the schedule," which judges of experience never for a moment doubted, I should like to add a further word as to recommending prizes. At the Sweet Pea Show what surprised me most of all was that the judges, immediately following their wholesale disqualifications, should append, or cause to be appended, to the class card a smaller one bearing a legend "recommending"

the prizes to the adjudged premier exhibits. This, of course, is a totally different thing to recommending "special" or "extra" prizes in certain cases where disqualification had been rendered necessary through error or oversight. In the two classes to which these minor cards were attached the prizes were offered for exhibits under emphatically-laid-down rules and regulations, and the judges in recommending the original prizes at all far exceeded their powers.—E. H. JENKINS.

— I have read Mr. Horace J. Wright's letter under this heading on page 386, issue August 3, and also the opinions expressed on the point by several eminent judges on page 410, issue August 17. I observe that the unanimous verdict is in favour of Mr. Wright's contention. My voice will be but as a whisper in the desert, I know, because I cannot aspire to such fame as the men who have already written. However, may I say a word for the judges who are alleged to have erred? Than our gardening judges none could be fairer; it is immaterial to them who wins or who loses. They do their duty without thought of pleasing or displeasing this or that exhibitor. But when it comes to the question of wholesale disqualification, as in the case at the National Sweet Pea Society's Show, out of which this controversy has arisen, I think that they are right to pause. I praise them for it. The rule was there, "double standards will disqualify." Did any of the exhibitors knowingly put in flowers with double standards with the deliberate intention of defrauding the society? I say, most emphatically, "No, not one of them." Should they, then, all be punished in the severest manner known in the show tent? Again I say "No." Had the judges thought the intentions of the exhibitors were bad, they would have had to disqualify; but accepting my view that the double standards were there in simple error, they took the lenient and, in my opinion, correct course. To adhere strictly to the letter of the law in such a case is to take too high a hand. From his notes in a previous issue of *THE GARDEN* I gather that Mr. Horace Wright has not forgotten an earlier occasion of disqualification in the history of the Sweet Pea Society. Does Mr. Wright know that his arbitrary action in insisting upon the rules being strictly interpreted almost wrecked the society on the threshold of its useful and prosperous career?—H. R. H. T. [We understand that the committee of the National Sweet Pea Society will not accept the judges' recommendations that prizes be awarded to exhibits containing double standards.—ED.]

Roses Lady Gay and Dorothy Perkins.—My experience of Lady Gay and Dorothy Perkins is exactly the same as the Scotch gardener's described by "Sub Rosa" in *THE GARDEN* of August 10, page 398. Dorothy Perkins grows strong and well, and bears beautiful large trusses of deep pink blooms, each bloom double the size of my Lady Gay, which comes paler, smaller, and does not look healthy in the foliage either. It is in rather a hot, dry position, and perhaps this may be the reason, for a neighbour of mine close by here finds, like "Sub Rosa," that Lady Gay does best for her in every way. I wonder whether the growers always name them rightly.—ESSEX READER.

— Several years since I planted some Roses of the variety Lady Gay from pots. These Roses were not very healthy when planted, but good soil was prepared for them, and it was thought that they would quickly root into this and improve in appearance. Our expectations in this respect

were, however, not realised. The plants made but poor growth, and this was not at all robust. The foliage was weak and sickly. I attributed this at the time to the plants being raised from unhealthy stock and grown rapidly under glass in strong heat. (It was soon after the Rose was in commerce.) Rose Dorothy Perkins, purchased at about the same time and from the same firm, was in every way satisfactory. I think Lady Gay is more robust, and produces a more uniform supply of flowers when budded. Own-root plants of this Rose should, if grown at all, be propagated from only the very best and strongest shoots. Dorothy Perkins can be grown on its own roots with every success. My experience has also been that the latter Rose will succeed in soil too poor to produce good flowers on Lady Gay, while the latter will grow and flower profusely without the amount of sunshine which seems absolutely necessary to the welfare of Dorothy Perkins.—C. R.

Laburnum alpinum.—I think "B." issue page 399, is quite right in calling attention to this Laburnum. The reason, perhaps, why one does not meet with it more frequently in small gardens is that its good qualities are unknown, and the common Laburnum is, of course, always sent out by nurserymen when a Laburnum tree is ordered, unless a special variety is asked for by the purchaser. In addition to the good qualities of the Scotch Laburnum mentioned by "B.," an important point with many having gardens by the sea or in exposed positions is the hardiness of this variety. I can recommend Laburnum alpinum as a plant to grow by the sea in moderate shelter. The pyramid form is the best to plant, and the trees must be staked and made quite secure at the time of planting. It is almost impossible to secure standard trees in very exposed places. It is much better to start with small trees. The Laburnum is not fastidious as to soil, but prefers a good loam and thorough drainage.—COLIN RUSE, *Lambay Island, Rush, County Dublin.*

A Good Culinary Pea.—In reference to Mr. C. Turner's successful experience with, and recommendation of, the culinary Pea known as Veitch's Prestige on page 398 of *THE GARDEN* for August 10, I may perhaps mention the success I have experienced this year with a variety introduced by Messrs. R. Veitch and Son of Exeter and known as Western Express. This and another variety sent out by the same firm called Glory of Devon received awards of merit from the Royal Horticultural Society, the first in 1902 and the second in 1899. I have grown both kinds, and consider the flavour of Glory of Devon somewhat better than that of Western Express, though there is very little to choose between them, for both are excellent. Western Express is classified as one of the first-early sorts, and Glory of Devon as a main or middle crop Pea; but this year I have grown the former variety only, making three successional sowings, the first at the end of January and the others followed by intervals of two or three weeks. The rows ran north and south, so that the plants got the full benefit of what sun there was, and of rain there has been no lack. All the sowings bore an abundant crop of large pods containing on an average nine large seeds, but a good many of the pods bore ten seeds, so that the yield on shelling was very great. This, combined with the heavy cropping and the continuous supplies of the successional sowings, left no desire for growing other kinds.—J. R. J.

Fremontia californica.—This is a fine shrub which deserves to be planted more freely in slightly-sheltered positions, for when seen with its numerous showy yellow flowers it is indeed a grand sight. It was originally discovered by Colonel Fremont in 1846, and the first plant to flower in this country was raised from seeds collected by Mr. Robert Wrench, who sent them to the Chiswick gardens of the Royal Horticultural Society. Eventually, William Lobb secured seed, when plant-collecting in California, and from these a number of plants were raised, which were in due time put into commerce. Propagation is effected by cuttings, which are placed in sandy soil and kept under a bell-glass till rooted. At East Burnham Park, the country residence of Sir Harry Veitch, it is planted against a wall, where it is allowed to grow naturally, and not treated in the same way as most shrubs in a like position. Under these conditions it flowers annually.—S. T.

Snapdragons and the Rock Garden.—The little note on this subject in your last issue (page 409) serves to remind one that there are at least two alpine *Antirrhinums* invaluable for planting in the rock garden. One of these, *Antirrhinum glutinosum*, is a low-growing or trailing species found growing wild in the Spanish mountains. The flowers, which are of a dull yellow, are produced in July and August, when most alpine plants have long completed their good display. The other species, *A. sempervirens*, is even more attractive, and flowers about the same time. It is a native of the Pyrenees and readily adapts itself to cultivation, as is clearly evidenced by the free-flowering colony shown in the accompanying illustration.—SPARTAN.

Zonal Pelargonium Maxime Kowalevsky.—A bed of this *Pelargonium* at Hampton Court arrests attention, especially at a little distance, by reason of its distinct tone of colour, which is a kind of yellowish scarlet or soft orange, difficult indeed to describe, but very attractive. Like many other good kinds—Paul Crampel, for instance—it was distributed some years before its merits were recognised, as it was sent out by MM. Lemoine et fils of Nancy in the spring of 1906, and was given an award of merit by the Royal Horticultural Society last year. Apart from its value for bedding purposes, it makes a good pot plant, as the flowers, which are borne in large trusses, are of good shape and possess a certain air of refinement. Taken altogether, it is one of those varieties which, if not already grown, may well be noted for future additions.—H. P.

FORTHCOMING EVENTS.

August 27.—Royal Horticultural Society's Exhibition at Vincent Square, Westminster. Lecture at three o'clock on "Recently Introduced Water Lilies" by Mr. J. Hudson, V.M.H.

August 29.—Warkworth Horticultural Society's Show. Sandy Flower Show.

August 30.—Dunfermline Flower Show (two days). Highland Horticultural Society's Show.

August 31.—Flower Shows at Whaley Bridge, Jedburgh, Melrose and Symington

THE FLOWER GARDEN.

THE SPORTING OF CALIFORNIAN-GROWN SWEET PEAS.

DURING the present year there have been numerous complaints about the sporting of Sweet Peas, or, rather, many who have grown them have bluntly stated that the stocks were mixed, and naturally attributed the trouble to the carelessness of the vendor. Under the circumstances it was not unreasonable to do so, because such varieties as Etta Dyke and Clara Curtis, which have hitherto come absolutely true, have been giving a large percentage of rogues. Knowing as we do the vast amount of trouble that all reputable growers of Sweet Peas take over their stocks, we could not countenance such suggestions; and after making

matter a little further, this theory will not hold water.

There are two facts that induce us to arrive at other conclusions. One is that practically all varieties with mauve, lavender and various shades of blue flowers come as true, and in some instances more so, from Californian-grown seeds as from seeds saved in this country. Now, if the seed-growers in California were careless over some varieties, and allowed them to become mixed, it is only reasonable to assume that they would sometimes be lax with the blues.

Another, and even more convincing, point is that although the seeds may all be true, the resultant plants give the percentage of rogues already stated. Take, for instance, the two varieties Etta Dyke and Clara Curtis. It is well known that both have cream-coloured seeds, yet, although all the seeds may be this colour, the plants from Californian-grown seeds give a number of coloured



A BEAUTIFUL ALPINE SNAPDRAGON (*ANTIRRHINUM SEMPERVIRENS*).

enquiries in several directions, it would appear that the whole trouble is due to Californian-grown seeds. It is, of course, well known that a great many Sweet Pea seeds offered for sale in this country are grown in California, where the climatic conditions are usually much better for seeding Sweet Peas than in this country, a perfectly legitimate proceeding so long as stocks can be retained true.

We have seen instances during the last few weeks of Sweet Peas that were true when sent out to California to be grown, yet when the seed from these plants was grown in this country it gave from 10 per cent. to 15 per cent. of rogues. As already stated, this has happened with such varieties as Etta Dyke and Clara Curtis, which invariably come true in this country. The natural conclusion that the layman would come to at this stage is that the trouble is due to the growers in California, who have allowed the stocks to become mixed at seeding-time. But when we investigate the

flowers which, if due to mixing at seedtime, should have had dark-skinned seeds. To carry this a step further we may mention that seedlings of Etta Dyke, when 3 inches high, showed dark tendrils and axils of their leaves—a sure indication that they would not produce white flowers—yet, when they were lifted, the seed that was still adhering to the root-stem had a white integument. Although all the seeds sown were of the true colour and shape, the resultant plants gave maroons, mauves, and several other colours of which even a novice could detect the seeds before sowing were it a case of mixed stocks.

The above facts, then, force us to one of two conclusions. There must either be something in the soil or climate of California that induces certain varieties of Sweet Peas when grown there to break or sport the following year; or there must be some insect or other agent, unknown in this country, which effects cross-fertilisation. The latter theory would appear the more feasible of the two. A

keen grower of Sweet Peas tells us that Major Hurst, who has had charge of the northern trials of the National Sweet Pea Society this year, has proved that if flowers of white or cream coloured varieties from separate plants are crossed, they will in some cases give a percentage of red or purple flowers, thus indicating that colour factors for red and blue may be lying dormant in those varieties. The whole subject is one of the greatest interest, not only to the grower of Sweet Peas, but to the seedsmen who sell them. If any of our readers can throw light on the matter, we shall be pleased to publish their letters, but we hope they will condense them as much as possible.

BULBS FOR AUTUMN PLANTING.

(Continued from page 416.)

Snowdrops and Winter Aconites.—I believe the whole secret of success with Snowdrops and Eranthis is never to let them get dried up. Anemone blanda, and apennina, too, lose some small fraction

never have I seen enough of it in any garden; and many still lack *G. byzantinus*, a robust beauty that, if planted in August in cool but not sodden soil, will flower from mid-December till February; 5s. 6d. will give us a garden picture of 100 of these lovely Snowdrops during that duldest of periods, and in most gardens it settles down and increases happily from year to year if planted early. *G. Ikaria* is quite opposite in character from the last, in that it flowers after most other Snowdrops, producing its great drop-pearl-shaped flowers above wide, deep green, Scilla-like leaves in March. Be firm with yourself, and mark and order both of these at once. If you are starting off for summer holidays, order just the same and select their places in the garden, putting in a label and instructing your gardener to plant them there *immediately* they arrive.

Crocus is the family that next suggests itself, and here a little outlay will bring you great joy. *C. speciosus* costs 3s. a hundred, and I cannot believe the money could be better spent. It is the least particular, as to situation, of all the Croci, and

with white anthers and rich orange markings in the throat; a good grower in sunny nooks. *C. Salzmanni*, from Southern Spain and Morocco, is yet quite hardy here, and a very robust plant, giving large lilac flowers in October. *Zonatus* generally sends up a few blooms in mid-September, and continues till October is middle-aged. It is very easy to grow, a rapid increaser, and is of a silvery pink colour that is peculiar to itself. When these kinds are passing away, *C. longiflorus* comes into bloom, with its fragrant rosy lavender flowers. I am very fond of it, as it makes a wonderfully good mass if left alone for three or four years, and flowers so freely that it is one of the most effective of all when open in the sunshine.

There are many others worth growing—*asturicus* in several varieties, light or dark purple; *nudi-florus*, so plentiful in the Pyrenees that almost any plant you dig up brings corms of the *Crocus* with it, yet not often to be found in lists. But when found at a reasonable price it is quite a plant to acquire. Its large flowers are of a fine blue-purple and very handsome. *Medius* is not often seen in gardens, but half-a-crown will buy a dozen, and a dozen of its rosy lilac stars, wide open, showing the exquisitely pencilled throat and the rich scarlet stigmata like tassels of silk, will set you to saving up another half-a-crown or two for a further purchase another season. All these I have mentioned are reliable hardy kinds that should grow well in any garden worthy of the name. I cannot write any more, for it is time to practise what I preach and make out my orders for early planting.

E. AUGUSTUS BOWLES.

SEASONABLE NOTES ON AURICULAS.

Enemies.—Although it cannot be said that the enemies of the Auricula are numerous, they are persistent, and if left alone they will quickly ruin all the choicest plants in the collection. The grower who would achieve the greatest success must be prepared to give regular attention to the plants,

so that if an enemy does put in an unwelcome appearance it may be killed before it has had a chance to do material injury. The time demanded will not be much, provided that the examinations are made at frequent intervals and that they are thorough.

One of the worst pests, if it be not quite the worst, is the small grub that bores a minute hole in the bud and forthwith commences to eat out its centre. There is nothing effectual in regard to this other than incessant searching, and, as the hole is very small, close watch alone will reveal the presence of the enemy. When one is found, it will require no suggestion from me that it be immediately killed. It must be emphatically understood that this is an enemy which does not delight to show itself, but one that works insidiously, and must be sought for day by day.

Then it is well within the bounds of possibility that both slugs and woodlice are present in the garden, and if they can establish themselves comfortably in the Auricula-frame, they will do so and play serious havoc among the plants. Instant



PRIMULA MOLLIS, A LITTLE-KNOWN GREENHOUSE SPECIES FROM THE HIMALAYA. (See page 425.)

of vigour for every half-hour they are above ground, and I have never yet seen a garden that held too many of these treasures. Now, we will take such lists as Van Tubergen's from Haarlem, Barr's from nearer home, and T. Smith's from Newry, Ireland. What will the wise gardener mark for present planting? Zeal will mark much, discretion limit those marked to match planting space, and then, alas! the purse will have to cut numbers down to those it can provide coins for. Eranthis hyemalis costs 1s. 6d. per 100 from Holland. All should mark that with indelible ink, and the lover of strange plants might pencil a mark against *E. cilicica*. A dozen at 9d. are worth a nook in the rock garden or under a deciduous shrub, such as one of the choicer new Deutzias, for they flower when the old Winter Aconite is passing away, and their red stems and more finely-cut Toby-frills make a pleasant contrast with the older plant. The Snowdrop or Galanthus clamours next for early planting. I need not say anything in favour of the common single Snowdrop—it is, surely, too well known and loved to need my praise—but

will live and flower even under the shade of trees. Its flowers are large and stand up well, and are as blue as any known *Crocus*. The groundwork of most forms is really best described as blue, not *Nemophila* or *Delphinium* Belladonna blue, of course, but much bluer than many *Campanulas* that are so described. Then it is veined with a wonderful branching pattern of purple-blue veins, and outside, at the throat, is freckled with purple, and the stigmata are of a rich orange yellow that contrasts in a delightful way with the surrounding blues. On a sunny day in late September or early October a clump of *C. speciosus* is as lovely a sight as one can ever hope to see in an English garden. They multiply rapidly in warm, well-drained borders, both by seed and by tiny offsets, after the style of the "spawn" of *Gladiolus*. The variety *Aitchisonii* is very large—one of the largest flowers in the *Crocus* family, in fact—and of a pale lavender blue, and flowers rather later than the type. There is also a white form that is good. *C. pulchellus* is another inexpensive and delightful one to plant, of a charming cool lavender shade,

THE GREENHOUSE.

PRIMULA MOLLIS.

THIS half-hardy Primula deserves more extensive cultivation. It is easily raised from seed, and makes a beautiful foliage plant. The large lobed leaves are heart-shaped. The margins are waved, notched and roundly toothed.

They are soft and velvety to the touch, and the rich green surface, being densely covered with soft, silky hairs, gives the plant a very striking appearance. The long leaf-stalk is also pubescent. The calyx in shape is like an inverted cone, and of an intense red colour; it is also hairy. The lobes are acute. The flowers are borne in umbels (three



A NEW GLADIOLUS; CROWN JEWEL.

to five) on a long hairy scape. The corolla, rose-coloured, stands well out beyond the calyx. The photograph reproduced on the previous page was taken by Miss Amy Cameron, Trinity, Duns.

Morelands, Duns.

JOHN MACWATT.

MALMAISON CARNATIONS.

(Continued from page 413.)

Watering.—It is perhaps here more than anywhere that that fineness of judgment so impossible to impart, yet so essential to success, is so desirable. Soils and temperatures are definable in words, while water and its application to such plants depends not only upon the latter, their size and vigour, but upon the season, upon environment and many other things. That the Malmaison Carnation is peculiarly sensitive in the matter of

watering, and quickly resents an overdose of it, all cultivators know quite well. Careful watering, therefore, is a matter of great importance at all times, and during autumn and winter the plants may go for days without requiring any. To some extent watering may be regulated by the active growth or otherwise of the plants, but in no case should water be afforded in dribbles or medicinal doses. If a plant is dry, water it thoroughly, *i.e.*, give it sufficient to moisten the entire body of soil, after which let it become dry again before any further supply is given. We take our meals at stated intervals; we drink when we are thirsty; and plants should be catered for in like manner, and studiously withal.

Potting On.—A solitary layer produces in the first season of flowering a single stem, and, if disbudded, one large flower and around the base of the stem several shoots, each of which if retained would flower the following year if the plant be potted on. This second potting is called a "shift" in garden parlance, and differs in no wise materially from the earlier potting into 6-inch pots. The same soil mixture and similar precautions must be observed throughout, together with extra staking as required. The potting of the old plants should be done very soon after the flowering is over, providing the plants with a liberally large pot at the time. Few plants probably among soft-wooded subjects are of a more exacting nature than Malmaison Carnations, and a full measure of success is only meted out to those who attend to cultural details for twelve months of the year.

THE ROSE GARDEN.

BEST ROSES OF THE YEAR IN A SCOTTISH GARDEN.

LAST year we had a very fine show of Roses, but owing to the great drought and heat the blooms were very thin and ephemeral. At the same time, the wood, if less robust than usual, was beautifully matured, and in no previous season have the plants come so well through the winter. For the first time in a fairly long experience I did not find a single dead plant, and we cultivate, roughly, seven hundred or more. The spring here was exceptionally dry, only 1.78 inches of rain having fallen during April and May. June was very wet, which, however, just suited the Roses, as in this late upland district

we can never have blooms of Hybrid Perpetuals and Hybrid Teas until July. Our only advantage is the possession of a good stiff loam and an abundance of stable-manure, and these are, of course, valuable assets when growing Roses. The first three weeks of July were, on the whole, fine, and the first crop of blooms was in grand condition. Without exaggeration, I have never seen a finer lot of Roses anywhere, and certainly 1912 has been by far the most successful season we have ever had here with the Queen of Flowers. I will now mention a few of the very best varieties for this cold district, in the hope that it may be of some interest to others who have a similar late locality to contend with.

General Macarthur.—Certainly the finest dark red garden Rose. This year the blooms were of

death must be meted out to them if progress is to be satisfactory. The woolly aphis, which ensconces itself round the collar of the plant, will cause death unless it is promptly brushed away. As far as my experience goes, it is impossible to prevent this pest, no matter how admirably, intelligently and carefully the plants may be managed, and one must, therefore, be constantly on the watch for it to ensure its removal before it can have done substantial injury to its host.

Potting.—If all work in connection with the potting has not yet been accomplished, it ought to be put in hand and pressed forward to completion in the shortest space of time conducive to carrying out the details with proper care. If it can be made convenient, pots which are exceptionally deep in proportion to their diameter must be given the preference, as the Auricula prefers to drive its roots downwards rather than curl them round the sides of the pots, as is the habit of many plants grown in our greenhouses. Fearful and wonderful mixtures of soil were supposed to be essential to success with Auriculas in the days of yore, but modern ideas are different, for they rule that the plants thrive best when a compost of sweet, plain food is provided, and there is nothing superior to the finest fibrous loam, with perhaps a little of something to open it if it is much on the strong side, to bring satisfaction. Watering is always a matter that demands thought and care, and especially so immediately after potting, when the roots have not had time or opportunity to secure a hold of the fresh material. An excess then will spell souring, and it will require the utmost attention again to restore the plants to good health. On the other hand, dryness to the point of dustiness will also spell disaster, and the cultivator must, therefore, strive assiduously to find the happy medium—pleasant moistness.

Plants Growing.—In favourable conditions many plants are now making steady advance, and it is wise to encourage this by every means. Give water before the soil becomes really dry, and test the pots at least thrice a week to see that a further supply is given at precisely the moment when it will do most good. Any leaves which show the slightest signs of decay ought to be at once removed, as the trouble will inevitably spread unless this is done. The surface of the soil in the pots should be gently pricked over to keep it open at all times, as this facilitates and encourages the admission of fresh air. This goes far to maintain the roots in excellent health, and the soil in sweet condition. F. R.

A NEW GLADIOLUS.

Wonderful improvements have been wrought among late-flowering Gladioli in recent years, and this fact was forcibly brought to our notice at the recent exhibition of the newly-formed National Gladiolus Society. Many novelties of sterling merit were shown on this occasion. On this page we illustrate one of the latest creations, named Crown Jewel. It is a strong-growing variety, bearing exquisite spikes of salmon pink flowers with a yellow blotch on the lower petal. This novelty was shown by Messrs. Kelway and Son, Langport, and recently received an award of merit from the Royal Horticultural Society.

enormous size and gorgeous colour. It is delightfully sweet, has grand foliage and promises a very fine autumn display.

M. Paul Lede.—One of the finest light Roses I know. Slightly variable in colour; sometimes this rivals a fairly good Lyon. Why is this fine Rose so much neglected?

Lyon.—Much finer than ever before. As the plants age, the habit seems to improve. Always best in dull weather. Withstands rain fairly well.

Mme. Ravary.—The best yellow Rose here. A free and constant bloomer. Best in dull weather.

Juliet.—A fine grower, but rather shy bloomer with us. The colours are unique.

Marquise de Sinety.—Glorious colour, large flowers, but shy bloomer. It has grand foliage, but a rather straggling habit.

Lady Ashtown.—One of the best pink Roses. This season the colour was deeper and brighter than ever before.

Viscountess Folkestone.—This old favourite has fairly excelled itself this season.

Frau Karl Druschki.—Very fine indeed on a south wall, but, being later than the majority of bush Roses, was caught before opening, where grown as a dwarf, by mist and rain.

Mrs. W. J. Grant.—Finer than ever before. A delightful Rose when it succeeds, as it has done this summer.

J. B. Clark.—Wonderfully fine this year. Even as a dwarf is flowering freely and giving very large, perfect blooms.

Ulrich Brunner.—Very fine indeed. This variety never fails. It withstands damp better than most.

Salamander.—One of the brightest red Roses we have. Has been extra good this season.

Pharisaer.—Very fine indeed.

Mrs. R. G. Sharman Crawford.—Particularly fine. What a pity this Rose is scentless.

The last two are not yet (August 5) in bloom, but promise to be finer than ever before. Shower of Gold is a lovely thing and flowered freely, although only planted last autumn. C. BLAIR.

Preston House Gardens, Linlithgow.

ROSES WITH BAD HABITS.

(Continued from page 412.)

Richmond is very deficient of petals, much more so than Liberty, and although it is perhaps a better grower, it does not please me so much as the old favourite. Until we have a better, Richmond will no doubt be planted largely, but I would advise all planters to be chary of accepting the glowing accounts of some Continental novelties said to be superior to Richmond and other reds, for my experience is that they are not.

Homere is almost a Rose of the past. We could endure its malformed flowers before we had so many lovely Hybrid Teas, but now it is not worth the space it will quickly occupy, for it is a prodigious grower. Going through the village of Hockley in Essex recently, I should think ten out of every twelve Rose plants seen were Homere, and they made no appeal to me, being devoid of colour and form, although I grant at times it is very pretty.

Dr. O'Donel Browne is much too vigorous to plant with ordinary Hybrid Teas, as a plant of it would spoil any arrangement where compactness of growth is desired. The same may be said of

W. E. Lippiatt, both superb in their individual bloom, but too near the Hybrid Perpetuals in growth to make good Roses for planting with the ordinary Hybrid Tea. I think it will soon be time to grade the various Roses according to growth, so that the planter may know just what to expect, and I would commend this suggestion to the publications committee of the National Rose Society. Such another Rose is

Mrs. James White, a very nice variety, but far too vigorous unless we treat it on the same lines as we do Mrs. Stewart Clark and such-like, that is, as pillar Roses or as free bushes. The ordinary Rose catalogue

does not differentiate between such Roses, which are described as being vigorous, with, say, Laurent Carle, which also is vigorous, but not of the rampant half-climbing order.

Mme. Melanie Soupert will yield quite a number of very uninteresting open blooms, although the buds and half-open flowers are so lovely. Of course, we can cut these off, but I think it is a fault in a Rose when it does not finish well.

Mrs. Arthur E. E. Coxhead is a superb Rose in every way save colour, and even this at times is all right, but generally it is a shade that fails to appeal to most individuals. The same may be said of

Exquisite, a most beautifully-formed Rose and of delicious fragrance, but the colour of the older flowers is of a dull magenta shade. I have seen this Rose superb in colour as well as form, but it possesses the bad habit alluded to.

Coming now to a few of the Rambler section, I think it is a pity raisers choose to ally inappropriate



A VIEW IN MR. ARNOLD WEISS' WATER-SIDE GARDEN.

Hugh Dickson.—A grand dark Rose of most exquisite perfume. A fine grower, with good foliage.

Mrs. John Laing.—Better than ever before, but, lately, spoiled by the rain.

Mme. Melanie Soupert.—A magnificent pale Rose. When half expanded the colouring is exquisite, and even when fully open most telling in the garden.

Captain Hayward.—Still one of the best dark Hybrid Perpetual Roses. A particularly free bloomer and highly perfumed.

Liberty.—Particularly fine this season. The blooms, if rather small, are of good substance and the colour brilliant.

Killarney.—Better than ever, and, so far, free from mildew.

Caroline Testout.—Still unbeaten as a pink garden Rose. Very fine indeed this season.

Clara Watson.—Colour and size of bloom much better than usual. A grand pale Rose.

Gustav Grunerwald.—Better than ever before. A really good Rose.

While the foregoing have been the cream of the collection this year, the following have also been good in every way: Le Progrès, S. M. Rodocanachi, Marquise Litta, Prince de Bulgarie, George C. Waud, Richmond, Mrs. David McKee, Mavourneen, Helen Keller, Dr. Andry, Frau Peter Lambert, Jeannie Dickson, Margaret Dickson, Paul Neyron, General Jacqueminot, Alfred Colomb, Betty, Exquisite, Gladys Harkness, Hugh Watson, La France (better than for several years), Mme. Isaac Pereire, Mrs. Aaron Ward (very fine), and York and Lancaster.

Climbing Roses.—The best this season are Hélène, Una, Dundee Rambler, Ards Rover, Mme. Isaac Periere, Climbing Caroline Testout, Grüss an Teplitz, White Dorothy and Dorothy Perkins.



THE PAVED ROSE GARDEN AT DRYNHAM, OATLANDS CHASE.

names with some of these. For instance, Longworth Rambler does not ramble in the ordinary sense of the word, and if any have planted it to cover an arch, they will have to wait. The same may be said of

Ards Rambler, a Rose more fitted for a pillar than to ramble on an arch.

Aglaiia is a very shy bloomer, and one that needs great care when pruning. In fact, it deeply resents the knife or shears, and should be given a position where it may ramble away undisturbed.

Goldfinch is a good Rambler, but its name might lead one to suppose it is all golden in colour, whereas the clusters contain a lot of very pale, nearly white, flowers that detract much from the general effect. I thought we had a real good thing in the

Perpetual - flowering Crimson Rambler, but it is shockingly addicted to mildew, the clusters of bloom being quite marred by the fungus unless checked early.

White Dorothy, when going off bloom, changes to a sort of dirty pink, which is anything but attractive, and we are glad, really, when we can cut away the sprays.

Now, I daresay there are other Roses with bad habits, but I will leave it to others to bring their names forward, and I think a ventilation of this subject before planting-time arrives may save readers a considerable amount of disappointment. This list of Roses with bad habits is an extensive one. The first instalment appeared in *THE GARDEN*, July 27, page 379, and no less than forty well-known varieties have been included. It is not claimed that this

list is a complete one, and readers are invited to express their views on Roses that may have been omitted.

P.

A BEAUTIFUL GARDEN NEAR WEYBRIDGE.

THE gardens at Drynham, Oatlands Chase, near Weybridge, possess many attractive features, and of them an extensive paved Rose garden is one of the most pleasing. Roses are favoured flowers with Mr. Arnold Weiss, the owner of this garden, for here

may be seen an admirable collection of Roses bearing evidence of suitable surroundings and good cultivation. Many old favourites, as *Caroline Testout* and *La France*, are observed, which in their season yield a profusion of flowers. The Rose-beds are bordered by a line of Carnations, and the Rose garden is separated from the pleasure grounds by a well-trained Yew hedge. In the centre of the Rose garden is a fountain and Lily pool, which is quite in keeping with its setting of flagstones.

Leading from the Rose garden to the flower garden and pleasure grounds is a flight of steps made of old paving-stones, and no opportunity has been lost to render them attractive and in harmony with the beautiful surroundings. From a glance at the illustration of these informal garden steps it will at once be observed that between the chinks of stone and in every available niche such plants as Thyme, Arabis, Mossy Saxifrage, and Sea Pink or Thrift have been planted, and, more than that, have taken kindly to their surroundings, to which they are so well adapted. This is a phase of gardening both simple and beautiful, and it might often be applied with advantage in other gardens.

A winding stream runs through the garden, eventually emptying itself into a spacious pond or lake, where *Nymphæas* thrive and flower freely. We give an illustration of the water-way, showing with what effect the banks are furnished with water-side plants. Most prominent are the large massive leaves of *Gunnera manicata*. The Royal Fern, or *Osmunda regalis*, also finds a congenial home, while at times the banks are literally golden with flowers of the yellow *Water Mimulus*. Japanese Irises (*I. Kämpferi*) are likewise used effectively as water-side plants, and the large and handsome



STEPS LEADING FROM THE PAVED ROSE GARDEN TO PLEASURE GROUNDS.

trees in the background enhance the beauty of the scene.

Many beautiful flowering shrubs are to be seen in these gardens, and Rhododendrons have been extensively planted in bold groups for early summer effect. We were much impressed by a grand plant of *Abutilon vitifolium*, which in early July was carrying a good display of its showy mauve flowers.

Not the least imposing feature of these gardens is a beautiful alpine and moraine garden, which at the time of our visit was still in course of construction. This rock garden was originally shown at the Royal International Horticultural Exhibition, where it was so much admired by Mr. Arnold Weiss that it was afterwards removed in its entirety to his garden at Oatlands Chase. These gardens are laid out with taste and skill, and are so arranged that an effective display of flowers or foliage may be had at all seasons of the year.

KITCHEN GARDEN.

SEASONABLE NOTES ON VEGETABLES.

Spring Cabbage.—The careful cultivator who appreciates the immense value of this crop in the early months of the year will now have at least two sets of plants, the earliest of which will be ready for their permanent positions, while the later are still in the seed-bed. Immediately a suitable piece of ground falls vacant, it must be prepared by the deepest and most thorough digging and the generous but judicious incorporation of rotten manure—an excess will spell sappy growth that will succumb to the weather; a shortage will mean poor progress and quality. Planting must be done firmly, and a distance of 15 inches, or even rather less, will answer both in and between the lines. The young plants in the seed-bed must be thinned to allow abundant space, and should be removed to nursery beds before they become crowded if the permanent position is not quite ready.

Harvesting Onions.—In a dry season the harvesting of the general crop of Onions does not present any serious difficulties, since they will finish off splendidly on the surface of the bed or on a gravel path; but after a wet period, such as we have experienced this year, rather more care will be necessary, as the plants are sappy. It is wise to be on the safe side in the matter of drying off, even though it involves more time and labour, because, unless the bulbs are thoroughly ripened, it is certain that they will not keep through the winter, no matter how favourable the place of storage may be. The best method of keeping them is in ropes suspended in a position where they will have unlimited supplies of fresh air with no damp; but if this is inconvenient, they may be stored in thin heaps in a dry, airy room. Frost need not worry the grower for a moment if the place is dry.

Winter Greens.—It is more than likely that the whole of the Broccoli, Kales, Savoys and Brussels Sprouts are now in their permanent quarters; but if not, the sooner the task can be finished the better. Indeed, it is already on the late side for most plants. After planting it cannot be said that they make serious demands upon the time of the grower, but they must in no circumstances be neglected, or they will inevitably show signs of it sooner or later. Frequent hoeing should be an inflexible rule, because at the same time as it admits sweet, fresh air to the soil, it prevents weeds from becoming established. It is by no means uncommon to see some of the plants growing too rapidly, and when this occurs the grower

the better, as the possibility of heating is reduced. It is necessary that the place of storage shall be absolutely frost-proof.

Autumn Onions.—There can be no question as to the importance of having a good bed of Onions from autumn-sown seeds, and now is the time to make a start in the majority of gardens. The most popular varieties for the purpose are the Tripolis and Roccas; but the best that I have tried for weight of crop, excellence of quality and long-keeping properties is Sutton's Globe, and those who have not grown it ought to do so. Although the seedlings will be ultimately moved from one position to another, the soil must be thoroughly prepared by deep digging and the intelligent incorporation of manure. It is imperative to success that the drills shall be made firm before the seeds are sown, and all weeds must be suppressed.

H. J.



CLETHRA ARBOREA, A FREE-FLOWERING SHRUB FROM MADEIRA.

TREES & SHRUBS.

CLETHRA ARBOREA.

ALTHOUGH introduced in 1784 from Madeira, it was not until July 30 of the present year that the Royal Horticultural Society bestowed an award of merit upon this handsome shrub. Doubtless there are many other valuable plants of time-honoured reputation whose merits have not yet been recognised. This beautiful shrub, unfortunately, is not sufficiently hardy to warrant its cultivation in the open, except in favoured counties such as Devon and Cornwall; consequently it is usually grown as a greenhouse subject in inland gardens. The illustration on this page shows the pure white fringed flowers depending from the under sides of the branches in their usual freedom.

A RARE SHRUB.

(FALLUGIA PARADOXA.)

In both gardening and arboriculture an indispensable family is the Natural Order Rosaceæ. A rare monotypic genus belonging to this numerous plant race is the Mexican and New Mexican *Fallugia* or *Sieversia*, a low, hardy under-shrub of singularly graceful appearance. It has many small leaves of somewhat thick velvety texture scattered up its slender white twig, each twig terminating in a solitary virginal white bloom. The flower, characteristic of the Rose family, 1 inch or more in diameter, with its bunch of numerous golden-tipped stamens, is a combination of Flax-like grace, Rock Rose fugacity and texture, and wild Rose attractiveness. It thrives in a warm, sunny position in light, sandy soil, and is increased by the freely-produced seeds. To the lover of rare foreign plants a good specimen in full flower is a pleasing revelation, and is additionally valuable on account of its late flowering season, in early September.

W. R.

should go over the quarters when the soil is just on the dry side and tread firmly down close to the stems. This will slightly check the root action and favour hardier progress.

Lifting Potatoes.—The lifting of Potatoes must be proceeded with as the tubers become ripe enough. It is, of course, conducive to excellence of flavour and keeping properties to leave them in the ground as long as possible; but there is always a danger that second growth will set in if the weather turns wet, and in that event the value of the crop will be considerably reduced. The tubers ought to be handled with the utmost care, and no attempt should be made to store them until they are perfectly dry, and even then the smaller the heaps

GARDENING FOR BEGINNERS.

A SIMPLE METHOD OF STORING FRUIT.

I NOTICE in your issue of the 3rd inst. an enquiry from your correspondent "J. C. Le S." asking if fruit could be kept in vacuum receptacles. Is it worth the trouble "J. C. Le S." suggests? If so, let him try it. I opine he would find, when once he opened these vacuum tins, the contents would rapidly succumb.

I have kept my fruit in a most satisfactory manner on lattice trellis stores, and have taken the trouble to make and enclose a plan of one which I trust you will understand and that it may be of use, which will afford me pleasure after the courteous and helpful replies you have always accorded to my enquiries. My stands are made from rough sawn deal (odd pieces, in fact), and are, as you will see, 5 feet by 5 feet by 2 feet 6 inches. I have kept Reinette du Canada on them until the middle of June, and attribute this success to the free air space all round the fruit, which must not, of course, touch each other. I keep mine in a dry attic, and, as you will note, every fruit thereon is visible there. You will note on the plan a rough perspective view of the stand, and it is important that the strips shown at the four corners should be added front and back to attain perfect rigidity. The whole is a knock-down arrangement. I fasten the triangular strips to cross bearers, preferably with string, tightly lacing it; but there are other means by which this can be done should the space between the triangular spines be too much or too little.

T. H. P. DENNIS.

Chelmsford.

COARSE GRASSES ON LAWNS.

LAST year, owing to the exceptionally dry weather, many fine grasses died on

lawns, and the coarser and deeper-rooted ones spread considerably. Where the latter were left to make all the headway they could, they have now become very conspicuous on the lawn. There are two courses open to owners of lawns—either to wait until next winter before attempting to eradicate the coarse grasses and weeds, or to do so at once, to sow lawn grass seeds in a small quantity of new soil and have nice plants before winter comes. I strongly advise the latter plan. As long as the coarse weeds and grasses are left, so will the killing of the finer grasses go on; this must be so, as the big ones spread. Coarse weeds of all sizes may easily be killed by two or three drops of oil of vitriol in the heart of the plant. The oil of vitriol is a poison, and also burns the skin, so that due precautions should be taken. Uproot the coarse grasses, put in some fine soil, sow grass seeds and roll well; also water if rain does not come. In

and cropped for the first time this summer. Another ordinary digging or trenching would much improve it, but the cultivator must lose no opportunity to get the soil into the best possible condition. In no case must the clayey subsoil be brought to the surface and mixed indiscriminately with the top layer for at least three years. At the end of that time, through yearly tillage, the soil to a considerable depth will be vastly improved, and some of the subsoil may then be mixed with the surface portion.

In many gardens there is a clayey soil and also a light one. In such cases the cultivator should, while carrying out trenching work, throw out spadefuls of the clayey subsoil at

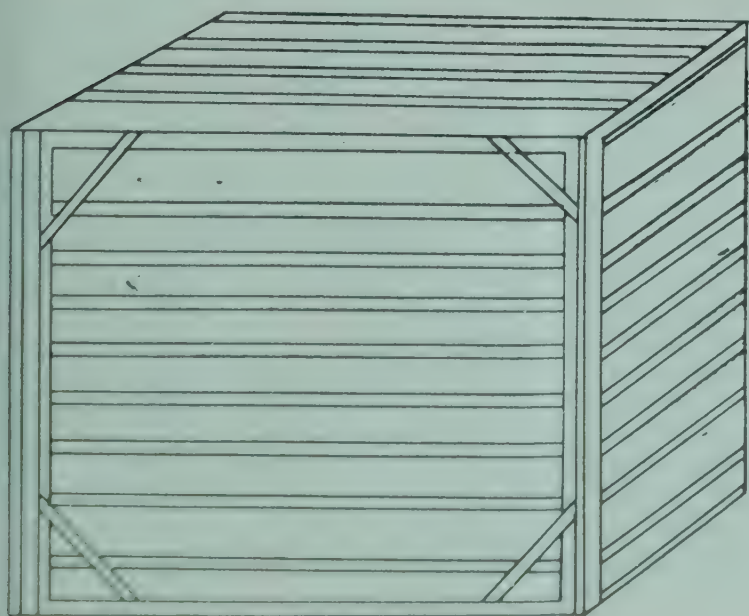
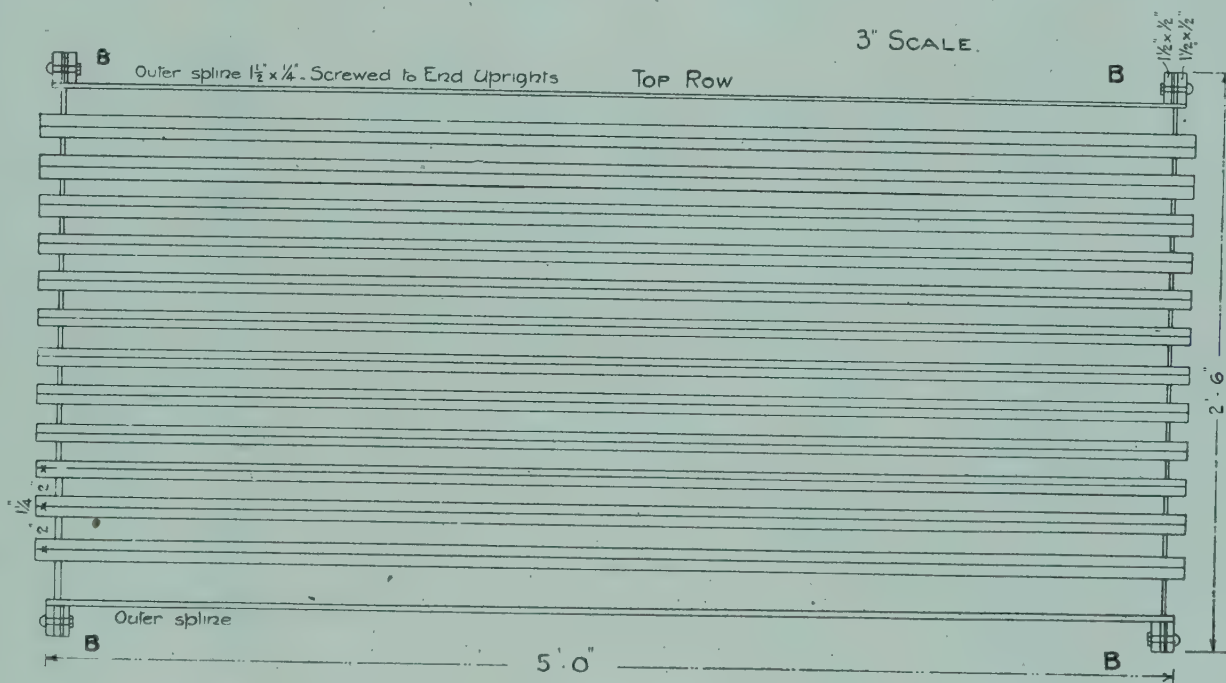
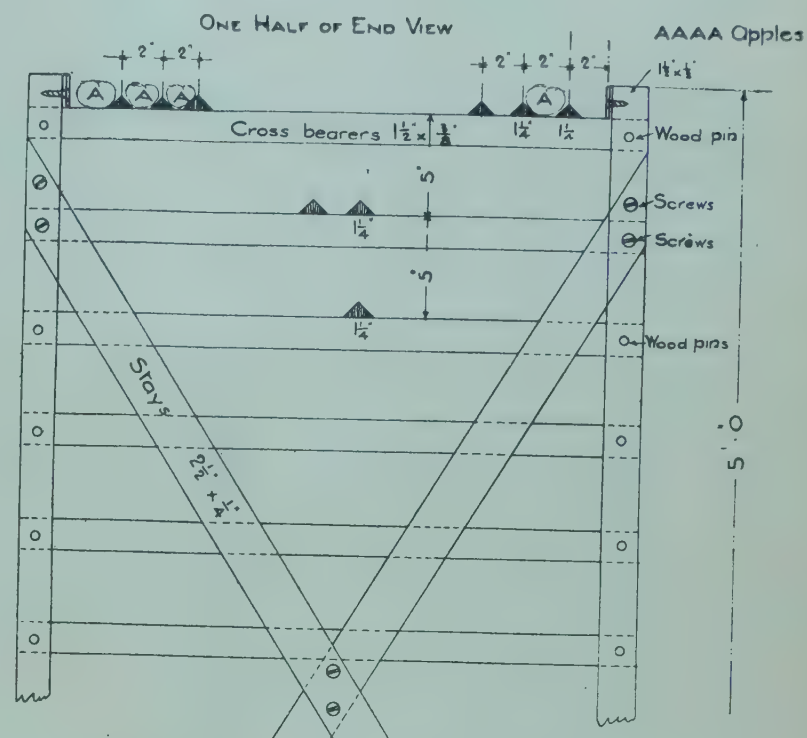
a few weeks' time the lawn will have a greatly-improved appearance, and the work of renovation may go on during the winter months.

HOW TO IMPROVE GROUND FOR VEGETABLES.

EVERY year new plots are dug up and cropped with vegetables. In some instances the newly-broken soil is very good, and does not need much labour to bring it into a good condition for yielding first-rate crops; but in the majority of cases a good deal of labour is needed and much care in the working of the soil and the application of manures. There is no time better than the present for "taking stock," as it were, of the real state of ground which was broken recently

every few yards as the work proceeds, wheel it away to a corner of the garden, tip it down in rough heaps, and leave it there for the frosts and weather generally of winter to act upon it. One turning may be advisable about the end of January. By the end of April the stiff loam will be in a pulverised state and very suitable for mixing with lighter soil. The soil which is added must be kept near the surface, not buried, then it will still be under the influence of the weather. Rotted manure may be mixed with the clayey portion of the soil this autumn, and with the lighter portion next February. The pulverised clayey soil would be splendid for Roses. In the heavy soil Broad Beans, Cabbages, Cauliflowers and winter greens may be grown; and in the lighter soil Dwarf Beans, Peas, Beet, Celery, Potatoes and Carrots may form the principal crops. By judicious treatment from year to year the soil would be so much improved and enriched that very heavy crops could be obtained from it at a low cost as regards the tillage.

AVON.



GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Rock Garden.

The Recent Rains that we have experienced have caused rather a sodden and bedraggled appearance, and considerably detracted from the general show of the few late-flowering subjects. Weeds have, however, grown apace, and careful hand weeding has been necessary. As soon as an improvement in the weather is apparent, the ground should be lightly forked up, and any places badly washed be surfaced with a compost containing plenty of porous material.

Cuttings.—Some of the subjects root very quickly, and any that show signs of having callused and rooted should be removed, potted if necessary, and placed where they may receive more air to prevent them becoming drawn, so that those which require it may be kept close and shaded from bright sun.

Fuchsia procumbens.—This is an interesting little trailing species that has flowered well this season. Unfortunately, here it is not quite hardy; therefore a few cuttings are best inserted at this season and wintered in a cold frame.

The Flower Garden.

Gaura Lindheimeri.—This is an extremely useful subject for the flower garden at this season, producing sheaves of flowers invaluable for cutting, while for continuity of flowering it is hard to beat. Seed sown in the spring will produce flowering plants the same season, but the second year gives a greater abundance, and the plants make dense growth and should not be planted less than 2 feet apart. Transplanted seedlings may be planted out in their permanent quarters now, and will be found quite hardy.

Chrysanthemum maximum.—The varieties of these have been particularly fine with us this season, and have made a wonderful show in the borders, while for cutting they are indispensable. Of the large-flowering varieties *The Speaker* is undoubtedly the best, the size of flower, length and strength of flower-stem exceeding any other variety with which I am acquainted. *Chrysanthemum maximum Daviesii* has small flowers, but is very free and useful.

Cosmeas.—These are among the most useful annuals that we grow at this season, and where cut flowers are in request the three varieties should be grown. They also make charming table decorations. The plants make good growth if planted in the shrubbery border and a little attention is given at planting-time to fork up the soil and add a little decayed manure. Each plant should be afforded a neat stake, to which the principal growths should be looped up occasionally, otherwise they may suffer damage from winds.

Pyrethrums.—No delay should now be allowed as to any attention that may be necessary as regards division or replanting of these in the borders. If the plants are not split up into too many pieces, they will be found to thrive much better than if left till the usual season for attention to the borders.

The Hardy Fruit Garden.

Strawberries.—As soon as the runners have become well rooted in the pots into which they were layered, they may be planted out into the open ground where it is intended for them to fruit as soon as ready, and thus get well established before winter. The ground should be in good condition, and the bed allowed to settle before planting out. Knock out carefully from the pot and plant with a trowel in straight rows, leaving 18 inches between the plants and 2 feet between the rows.

Black Currants.—These require but little pruning beyond keeping the bushes within bounds and the removal of some of the oldest fruiting wood to encourage the younger growths and a shapely tree. Before long any attention that may be needed as regards staking should be given the plants, and the quarters of these and other bush fruits must be kept clear of weeds by occasionally going through them with the draw hoe.

The Kitchen Garden.

Onions.—The culture of large Onions is now fairly general, and apart from their value for exhibition purposes, they are valuable for use

in the kitchen. To ensure their keeping qualities a little care is necessary in the proper ripening and harvesting of the bulbs. No further stimulants must now be given, but by taking off the rough outer skin and so exposing the bulb to the sun and air, perfect ripening is afforded. Any signs of splitting can be further prevented by partially lifting the bulbs with a fork. When lifted, place on a soft layer of wood-wool or hay and lay out of doors when dry till thoroughly ripened, when they will be found to keep sound for a very long time.

Parsley.—Make a sowing in a sheltered position in the garden for lifting and planting in skeleton frames for winter use. Thin earlier sowings as necessary, and if the weather is showery, the thinnings may be transplanted out of doors with ease.

Runner Beans.—Keep the plants well supplied with water at the roots. When the growths have reached the top of the stakes, stop the shoots; this will cause the plants to break freely at the base. Keep the Beans picked as soon as fit, and if the foliage becomes too thick it may be partially thinned.

Plants Under Glass.

Fuchsias.—If plants are wanted for decorative purposes in the greenhouse next year, cuttings may now be inserted and struck in a warm house. Place four or five cuttings of half-ripened shoots in a 3-inch pot in a sandy open compost. When rooted, pot singly into small pots and move on as becomes necessary.

Humeas.—Seed may now be sown for producing next year's stock of plants. Sow the seed thinly in pans or direct into 3-inch pots and raise in a warm greenhouse. If the former way is adopted, pot the seedlings off as soon as large enough and avoid injury to the roots. Shade for a few days; after then expose to the light on a cool shelf and give more air.

The Greenhouse.—Keep the occupants in as healthy a condition as possible by sponging and occasional light fumigations. Many of the climbers will benefit if the growths are thinned out and regulated, and always endeavour to let them grow as naturally and gracefully as possible. The plants will greatly benefit, both in health and appearance, by an occasional rearrangement, washing the pots and the surroundings and raking over the base, whether of ashes, gravel or other material.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Propagating Geraniums.—It is usually about this date before cuttings of Geraniums can be taken without the risk of making the beds unsightly. There is yet plenty of time to strike them for them to become established before the winter. My plan, after taking the cuttings, is to dress them ready for insertion in cutting-boxes; then leave them to dry for about two days, after which they are dibbled into the boxes.

General Work.—There is unintermitting labour in picking off decaying leaves and flowers and keeping gross-habited plants within bounds. The beds and borders should be examined for this purpose at least once a week, but twice a week would be better. Weeds have been extra troublesome, and extensive herbaceous borders, on account of the wet, had to be hand weeded three times. These, however, where the plants are closely planted, are now a negligible quantity; but there is constant work in keeping the plants in order, particularly in removing old spikes and decaying flowers and cutting-in overgrown plants.

The Rock Garden.

Hesperis.—The double Scotch or French Rocket is a capital rockery plant where effect is an object. It has, however, a disagreeable habit of dying if left too long, and therefore annual propagation has to be resorted to. The plants should now be lifted and pulled to pieces singly, and these be planted in cutting-boxes and placed in a cold frame till spring, when each will be strong enough to produce a spike of flowers the ensuing summer.

Saxifrages.—The low-growing, spring-flowering species, such as *sancta*, *Rhei* and the muscoides,

flower more profusely when pulled to pieces and replanted in fresh ground, and this operation may be effected now or soon. The little clumps should be only a few inches apart to ensure the whole space to be covered. An easier way is to pull out pieces from the groups without lifting, dressing with finely-sifted rich soil. Offsets of the pyramidalis section may be taken and replanted forthwith, the single pieces coming to flowering size in considerably less time than when left on the parent plant.

Erinus alpinus.—This pretty little flower is sometimes unreliable, and needs to be raised from seeds at intervals. Seedlings sometimes appear among stones, and these, if necessary, should be lifted and rearranged. Odd corners of rough steps suit them well.

The Vegetable Garden.

Onions.—Winter Onions will be certain to need hand weeding and the ground stirred with some sharp implement. If any of the spring-raised crop is running to seed, pinch out the stem at once, otherwise the bulb will cease to swell. In some seasons the foliage is much infected with Onion rust, and perhaps the best way to treat this is to cut off the infected leaves below the diseased parts. If allowed to progress, it undoubtedly injuriously affects the keeping of the bulbs throughout the winter.

Cabbages.—It is too soon for the main lot of these to be ready to transplant, but any specially large seedlings, if transplanted in the course of the next week, may come in some weeks in advance of the general crop. Thin out small ones if too close in the seed-bed, and remove any weeds such as Groundsel and Chickweed.

Lettuces and Endive.—Continue to plant out seedlings of these as they become ready. One can never be sure which will come in most useful for winter and early spring cutting, early sowings in mild weather turning in too soon, while later ones come just right, though perhaps of no great value in late seasons.

Radishes.—A large sowing made in the course of the next few days will be of much value as a late crop. Sow quite thinly in finely-pulverised soil and thin out if the seedlings come too close, else the greater part will run to leaves. These, if all goes well, will produce roots to use over many weeks.

Hardy Fruits.

Gathering Apples.—Lord Suffield, Lord Grosvenor, Victoria and Golden Spire may be mentioned as varieties which, if heavily cropped, may have the more forward fruits gathered, when the later ones will be considerably enlarged in the course of two or three weeks. Irish Peach may be gathered in the same way, only the trees will need to be inspected every two or three days, and a watch should be kept on other early-ripening varieties, especially those favoured with a wall.

Pears.—Clapp's Favourite usually commences to ripen at this time, and, like Jargonelle, matures very rapidly, but is not so liable to rot in the centre as the latter. Dr. Jules Guyot is another fair-flavoured variety which must be watched. The fruit of this kind keeps rather better than the others named.

The Plant-Houses.

Pelargoniums.—Spring-struck plants of the decorative section should now be advanced enough to be repotted into 6-inch pots. Rough rotted turf, dried cow-manure and a little sand suit them well, making the material rather firm, especially that in the under part. Give abundant ventilation, and remember that aphid is an intolerable nuisance.

Calceolarias.—These ought to be advanced enough for 4-inch pots. A rather heavier compost than that advised above is suitable. Keep the plants as cool as possible, and damp or moisten under and about them. Dryness at the root is to be deprecated above everything. If aphid appears on the under side of the leaves, dust with Tobacco powder.

Cinerarias.—Six-inch and 7-inch pots should be used for the larger plants of these, using leaf-mould and old Mushroom-bed manure to the loam and potting loosely rather than hard. Give the plants plenty of space in the frames, the leaves after this potting coming large and demanding extra space; and it must not be forgotten that they will do much better in cold frames than anywhere up to November.

R. P. BROTHERSTON.

Tynninghame, Prestonkirk, N.B.

DAFFODIL NOTES.

SOME MODERATE-PRICED DAFFODILS FOR SHOWING.

BEFORE I begin my list I would once more urge the great importance of early planting. It makes all the difference in the world. I would like anyone who is sceptical upon this point to buy a dozen of Emperor and plant half of them as soon as he gets them and the rest two months later. Then, when April comes, I would ask him to note and measure the results. Early planting means vigour and size. It also means better health for the bulb and greater increase. Dealers are fully aware of this, and those who list the more expensive varieties generally put a note in their catalogues to the effect that about the end of August or early in September their sales for these will cease, as they will then plant what is unsold. In a garden border it does not matter so very much if this or that bloom is not quite as large as it might be. Nor when the prices are low is it so important to get all the increase we can from our purchase, nor is the health question of such primary consideration. The first point is hardly noticed, and the results of the second and third are soon put right by buying new ones another season. Not so with the expensive "show" ones. Size at an exhibition means much. Increase and good health denote an adequate return for the money laid out.

Having urged the importance of early planting, I am now going to take the Royal Horticultural Society's List, section by section, and call the attention of would-be buyers to some of the more moderate-priced bulbs that are included in them. The word "moderate" needs defining. For my present purpose it may be said to be anything between two shillings and two pounds.

Division I.a, Yellow Trumpets.—This is an easy section to provide for. Such kinds as Hamlet, Cornelia, King Alfred, Lord Roberts, Monarch, Mervyn, Outpost and Mrs. H. J. Veitch are all flowers of good quality, although as grown in my garden I cannot say they are every one of them very good doers. Monarch does fairly well, but Lord Roberts but poorly. In some gardens the reverse takes place. Mervyn has its years, one good and the next bad. I feel I must give such warnings to put people on their guard and to prevent them expecting every kind to do as well as the good old Emperor. Lesser-known ones are the Rev. R. D. Williamson, a deep yellow, valuable for its lateness; Golden King, a new introduction of last year, of which I think highly—it promises to be a good doer; and Cleopatra, later still than the Rev. R. D. Williamson, a splendid thing and of large size, tall and very refined. Messrs. Barr and Sons have an excellent picture of it in their 1911 list. Two very beautiful deep rich yellows, almost rivalling the still unapproached Maximus, are Goldseeker and Leiden Jar. I have not grown either of them, and only know them for their appearances at shows; but they are always described as vigorous and strong in trade lists.

Division I.b, White Trumpets.—This is a coming section. There are a fair number of most lovely things coming along—Ailsa and Countess of Stamford, for example, but they are very dear now. Even Florence Pearson, which is one of the most robust, is not a quick increaser, while White Knight, probably the most refined Daffodil in

creation, is a very slow one. This means prices are slow in coming down; but everything comes to him who waits, and we can now buy Mrs. Robert Sydenham, which is a good, well-made flower, with a somewhat long and narrow trumpet, for 30s. from Miss Currey, and Mrs. G. H. Barr for the same figure from Messrs. Cartwright and Goodwin. One of the best of all low-priced ones is Princess (12s. 6d.), which only seems to be listed by Mr. Wilson. It is not large, but is well formed. As I have just bought some myself, I feel I can recommend it. Another show bloom is Treasure Trove, price about half-a-sovereign. I think it will be a fair grower. In pots it is exquisite. Loveliness and Lady of the Snows are two good varieties. I see in looking over old notes the former has frequently caught the writer's eye.

Division I.c, Bicolor Trumpets.—When we leave the well-known Duke of Bedford, Weardale Perfection, Glory of Nordwijk and Mme. de Graaff we have very few of moderate price. Cygnet is one of the best. It is of the pale type, and has a long trumpet, strikingly rolled back at the mouth. Judge Bird is a glorified Empress. Coronet is a beautiful flower, by no means large, but very taking on account of the deep tone and the bold contour of its trumpet. Queen Emma, one of Messrs. van Wavere's productions, I have not been able to find in any British list. I cannot think why, as it is an exceptionally good bloom for exhibition. It is on the early side. So, too, is William Baylor Hartland, a huge flower, well formed. The perianth is ivory white and harmonises well with the trumpet. I had some remarkable blooms this spring that, had they appeared in the Narcissus committee room of the Royal Horticultural Society, would, I think, have secured it an award of merit.

Division II.a, Large Chalice-cupped Daffodils with a Yellow Perianth.—Blackwell, Autocrat, Gloria Mundi, Homespun and Lemon Queen are well-known types of this section, which, to tell the truth, I always find a little difficult to fill when I am getting my blooms together for a show. One naturally thinks there must be no end of suitable varieties, but there are not. Some day, when Croesus, Queen of Hearts, Helios and such flowers as Tammerlane are within the reach of ordinary pockets, there will be plenty to pick from, for there are many now in existence, and these will in time find their way into the market. Solfatare, and more particularly Noble, are excellent in every way. Both are on the late side, and both have good form and substance. I consider the latter a very fine thing indeed, and one that will be a Daffodil as long as it lives. Marguerite Durand is now placed in this section. When it opens it looks like a Leedsii, which indeed it is, but as it grows older it takes on a peculiar shade of pale canary. It should be allowed to grow on the plant, and must not be cut in the opening bud stage. Giraffe is a plant of great vigour, and has solid-looking, overlapping perianth segments and a large expanded crown much frilled at the edge. Of those of lesser value I would pick Cœur de Lion, a fine flower in a young state, with an open reddish cup; Northern Light; and Red Cup, a notable flower, owing to the orange glow in the yellow perianth.

Division II.b, Large Chalice-cupped Daffodils with a White Perianth.—This is one of the easiest sections to fill if one had to show in a six or a twelve class. There are any number of good flowers. Taking the more expensive first, we have Bernardino, Fleetwing, Charles, Lady Moore, Great

Warley and Pedestal. Fleetwing, Pedestal and Great Warley are bicolors. Charles and Lady Moore are mentioned because of their very striking cup, which has a fairly well-defined broad band of red round the edge. I call them both very excellent substitutes for Challenger. They are both most effective in any collection, and, what is also good, they are very distinct from other varieties, although of the same look themselves. Whitewell has now earned itself a position, and it bids fair to be one of the most popular show flowers. Amber is of the Nelsonii type, with a fine bit of pale orange in its cup. Lady Margaret Boscawen and Brigadier are fine bicolors, the latter being the more pointed. Steadfast is even better, but it is very late. Orangeman, when it does well, is most effective, its bold, orange cup always standing out conspicuously.

JOSEPH JACOB.

(To be continued.)

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Montbretia Star of the East.—Judged by the progress of the modern Montbretia during the past eighteen or twenty years, this remarkable variety has advanced by a single bound at least a decade from all its fellows, outdistancing the best of them in size—the individual flowers are $4\frac{1}{2}$ inches in diameter—in purity of colour-tone and refinement, and not less so in the great flat flowers, whose presence is as a blazing fire. In their opening hours the flowers assume an almost blood orange tone; later, when more expanded, a paler, rectified orange colour prevails, which contrasts well with an almost primrose yellow base. The reverse of the flowers, like the oncoming buds, is of an intense red orange over all, so that from any point of view the variety is of the picture-making order. Not least among the many good attributes of this unique variety is its fine branching habit, which promises a long succession of flowers. We congratulate the raiser upon so signal a triumph, regretting that such an epoch-making plant has not brought more tangible recognition to the worker. Exhibited by Mr. G. Davison, Westwick, Norwich.

Lælio-Cattleya Glaucus.—A unique and very highly-coloured hybrid raised by crossing Lælia purpurata and Lælio-Cattleya rubens. Of perfect form and compact habit, the dominant colour of the flowers is a vivid ruby red, with bright yellow disc. The hybrid does not partake of the character of Lælia purpurata, and some doubt was expressed as to its parentage. Be this as it may, it is a striking novelty, and worthy of its high award. Shown by Lieutenant-Colonel Sir George Holford, K.C.V.O.

Lælio-Cattleya Godmanii.—This is quite a distinct hybrid, remarkable for its large crimson lip. The petals and sepals are of an intense rosy hue. Parentage: Cattleya Iris × L.-C. callistoglossa. Shown by F. Du Cane Godman, Esq.

AWARDS OF MERIT.

Kniphofia Unique.—In colour best described as a reddish scarlet K. Nelsonii, from which, indeed, it is a seedling. The plant is $3\frac{1}{2}$ feet in height, with all the freedom of flowering of the original species and with considerably improved vigour. We regard it as a welcome border plant of middle height, and one specially suited to massing because of its distinctive colour and free-flowering. From Messrs. Wallace and Co., Colchester.

Cosmos White Queen.—A graceful and elegant variety, quite pure in tone, that should be much

in demand. It is quite an acquisition. Exhibited by Messrs. Dobbie and Co., Mark's Tey and Edinburgh.

Rhodostachys andina.—An interesting Bromeliad from the Chilian Andes, whose rose pink flowers, crowded on a hemispherical receptacle, are rendered the more conspicuous by the orange anthers. The arching or recurving leaves are strongly spined, of a greyish glaucous green, and arranged in a dense regular rosette. This interesting plant is not a novelty, but one whose rare appearance in public calls for more than ordinary notice. Exhibited by Mr. J. T. Bennett-Poë, Cheshunt (gardener, Mr. Downes).

Lælio-Cattleya luminosa Mandarin (L. tenebrosa Walton Grange variety × C. dowiana aurea), from Lieut.-Colonel Sir George Holford, K.C.V.O.

Brasso - Cattleya Ilene (C. dowiana × B.-C. Mme. Chas. Maron), from Messrs. J. Veitch and Sons, Limited.

Odontoglossum Empress Eugenie (parentage unrecorded), from E. H. Davidson, Esq.

Odontoglossum nigrescens (O. Edwardii × O. cirrhosum), from Messrs. J. and A. McBean.

The foregoing awards were made by the Royal Horticultural Society on August 13,

FLOWER TRIALS AT WISLEY.

The following plants have been adjudged awards of merit at Wisley after being inspected by the visiting committee appointed for that purpose. The varieties are not necessarily novelties—some, indeed, are well known and largely cultivated—one object of the trial, apart from its informative character, being to confirm previously-expressed opinions and, in the case of the Violas, to set a hall-mark of merit on those varieties which, by their persistent flowering appear best suited to garden decoration generally.

VIOLAS.

Edina (Dobbie).—Of rich royal purple colour, habit compact and dwarf, free-flowering, and generally regarded as an advance on the well-known Archie Grant.

Pencaitland.—A fine pure white with yellowed lip; good perennial habit.

Walter Welsh (Dobbie).—Colour rich golden, the flowers slightly rayed. Of rather tall growth, but almost indispensable for its colour.

Maggie Mott (Dobbie).—This well-known pale blue needs no description. It is indispensable to all lovers of the Viola.

Lavender Queen (Mr. Cuthbertson, Rothesay).—A good dark lavender blue shade, with rather conspicuous dark rays to the flower. Habit and freedom of flowering excellent.

Snowflake (Mr. Cuthbertson, Rothesay).—A splendid white-flowered variety with yellow eye, perhaps the best white self in the collection.

Jubilee (Mr. Cuthbertson, Rothesay).—Fine purplish maroon, free, and a good carpeter of the soil.

Mrs. Chichester (Mr. Cuthbertson, Rothesay).—White with mauve shading and pencilling. A most pleasing and effective variety.

W. H. Woodgate (Forbes, Hawick).—This is of almost plumbago blue colour, and as distinct as it is desirable.

John Quarton (Forbes, Hawick).—A good all-round blue of excellent habit and freedom of flowering.

Mrs. Davidson (Forbes, Hawick).—Blue with lilac red shading distinct

King Cup (A. Dickson).—Rich golden colour, free-flowering, and with a good carpeting habit of growth.

Bessie (A. Dickson).—White, shaded lilac, and with yellow eye.

Palmer's White (Mr. Palmer, Derby).—A sturdy-habited variety and a good yellow-eyed flower withal. Excellent in every way.

SWEET PEAS.

Mrs. Routzahn (Dobbie).—This is probably one of the indispensables of the cream pink section, and is an exquisite colour combine.

Tennant Spencer (Dobbie).—Rosy purple to purplish mauve. A fine handsome-looking flower, quite a top-sawyer in its way, and good for garden or exhibition.

Isobel Malcolm (Dobbie).—An ivory or cream coloured flower of exquisite quality wedded to a plant of wondrous vigour and freedom, as well as profuseness of flowering. Quite in the front rank.

Hercules (Stark).—This variety stood out well in the collection, as befits the giant it really is. It is of rose pink colour; in brief, a glorified Countess of rare substance.

Premier (Stark).—Intense crimson, with no traces of scorching. A remarkable and striking bit of colour, and probably unique in this respect.

HOLLYHOCK.

Newport Pink (for strain).—The long line of fifty-two seedling plants made a fine display, and were absolutely true to colour—a good rose pink. From Mr. Dreer, Philadelphia.

The following awards were made as the result of trials held at Wisley:

MELONS.

First-class certificates were granted to the well-known varieties Hero of Lockinge and Frogmore Scarlet, both sent by Messrs. James Veitch and Sons. An award of merit was made to Royal Favourite, sent by Messrs. Sutton and Sons.

MARROWS.

The following were each granted an award of merit: Bush Green, sent by Messrs. Barr and Sons; Moore's Cream, sent by Messrs. R. Veitch, Exeter; and White Bush, sent by Messrs. Nutting, Southwark Street, S.E.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

PEONIES GONE WRONG (Northwood).—The most probable cause of the blind buds is the great drought of the summer of 1911, which precluded the development of the crown-buds on which the flowering depends. We can only suggest a very generous treatment of the plants at the present time as a means of modifying an even worse state of things another year, watering and affording liquid manure to the plants with the greatest freedom. There have been so many failures with these plants this year that

we published a special article on this subject in our issue for July 13.

SWEET PEAS (H. W. S.).—Bud-dropping is as prevalent as ever this season in well-grown plants on rich soil. It is more than probable that when the plants settle down to free flowering the trouble will almost, and probably entirely, cease.

PINK (R. de la Poer).—A very pretty, and apparently distinct, variation of the common Mule Pink, quite worth perpetuating if freely flowered. We are assuming it to be a Mule Pink from the flowers alone, though, had you sent some of the growth, we could have given a more definite answer.

CARNATIONS UNSATISFACTORY (H. W. S.).—We should ascribe the trouble with your Carnations to excellent grown and severe disbudding. Vigorous plants must have an outlet for their energies, and disbudding to a limited number of stems with only one bud on each does not provide it; the flower comes either abnormal, as in your case, or coarse. Allow more flowers, and you will probably have them perfect.

LILY DISEASED (M. C. T.).—Your plants are badly attacked by the well-known Lily disease, which in some parts has been attended by dire results. All you can do at the present time is to collect and burn every atom of the diseased leafage or stem-growth, and at the end of July lift the affected bulbs, give them a sulphur bath, dry them, and subsequently transplant in a fresh position. In the ensuing year, should the disease reappear, syringe the plants at once with sulphide of potassium, 1oz. to two gallons of rain-water. As a preventive measure you might employ this once every ten days from March to June, wetting both upper and under surfaces of the leaves.

SWEET PEAS (E. M. B.).—The Sweet Peas are attacked by eelworm. It is doubtful whether anything that can be done will cause them to recover; but you might try earthing them and use a stimulating manure, such as nitrate of soda. It is very doubtful whether the making of a hole in a clay soil and filling with a lighter soil is a wise measure, for the hole is apt to act as a catch-pit for water and the soil to become waterlogged. Great care should be exercised to see that the drainage is always thoroughly efficient. Eelworms are frequently introduced with stable-manure if it has not been well matured before use, and especially if it is from animals fed with Clover hay. The soil before it is used for growing Peas again should be turned right over, so as to bury the eelworm-infested part as deeply as possible, and dress well with potash.

TREES AND SHRUBS.

AMPELOPSIS (M. H. W.).—Without seeing the plant and the conditions under which it is growing, no definite statement can be made respecting the cause of the shoots dying off. Old plants are sometimes attacked by canker. Fortunately, Ampelopsis Veitchii is a particularly quick-growing climber. Your best plan will be to root out the old one in autumn or spring, work in some fresh loamy soil, and put in a strong young plant.

LIME TREES (L. E. T.).—The common Lime is one of the best trees for clipping and training as you suggest. It is also a quick-growing tree, and would soon form a screen. Tilia petiolaris and T. dasystyla are, perhaps, improvements on the common Lime, T. vulgaris, in some respects, for they keep cleaner, and the leaves do not turn yellow so early in autumn. Should you require an evergreen, you might plant Austrian Pine. The Horse Chestnut is also a good deciduous tree for the purpose, but it is somewhat heavier than the Lime.

ROSE GARDEN.

BLACK SPOT ON ROSES (M. A.).—Unfortunately, you can do little to check this pest now, as it has such a hold upon your plants. It may be kept in abeyance if the plants are frequently sprayed with sulphide of potassium from the commencement of their growth. It is not likely to spread much more, as the visitation is nearly always simultaneous. You should, however, persevere in having infected leaves gathered up and burnt, and in winter have about an inch of the surface soil removed and burnt.

ROSE LEAF-CURL (Mrs. Mallock).—We have noticed that this troublesome disease seems especially to attack Roses growing in light soils. It is generally supposed to be caused by an insect—one of the sawflies, but we believe it is a fungus. At present it seems to be a mystery as to its origin, but we believe it is brought into the soil upon roots of plants that have come from infected districts. We would advise you to transplant your Roses next autumn, giving them some good loam, and prior to replanting well wash the roots. Pick off all the worst leaves and burn them.

ROSES, MANURE AND INSECTS (Miss E.).—Sulphate of iron is not a desirable manure to use for Roses; occasionally its use improves the colour of the flowers, but there are much better and safer manures to use. One of the best manures for Roses is Tonk's manure. This contains a very small proportion of sulphate of iron. A quick-acting and valuable manure for present use is Clay's Fertilizer. Dissolve 1oz. in a gallon of water, applying twice a week. From what you say, the pale yellow fly is the winged form of the common aphid, or green fly. Spray with a nicotine solution or diluted quassia chips extract, made by pouring boiling water on the chips. Soft soap is a good safe remedy. The piece of plant enclosed may be Spinach; but please send when in flower, and also enclose a leaf or two from the base, as these are different from those on the stem and are useful for identification.

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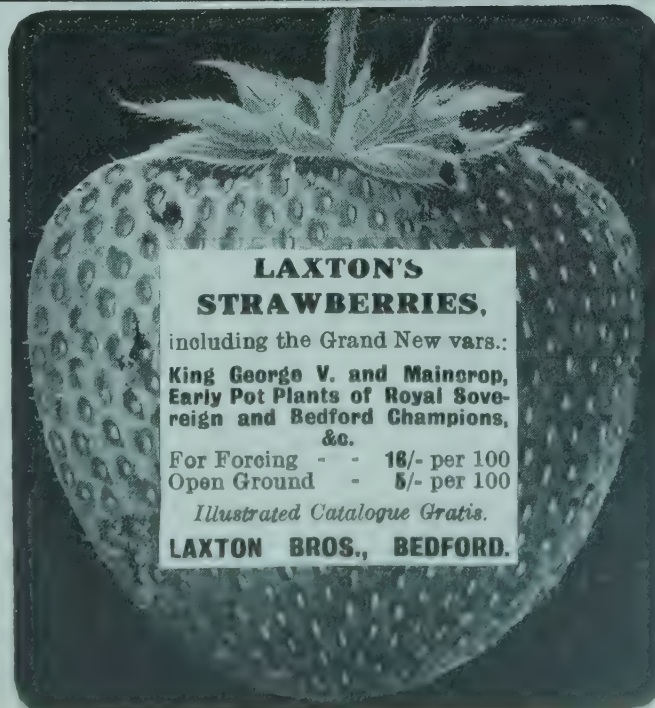
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ROSE FOLIAGE BLIGHTED (*K. S.*).—The foliage you send has what is known as Rose leaf-curl, supposed to be caused by the larvæ of a sawfly. You can do nothing now but cut away the affected leaves, and it will do no harm to spray the unaffected foliage with nicotine wash.

PRUNING CONRAD F. MEYER (*Grace Gardener*).—You may cut back the whole plant to within 2 feet of the ground next March. This will bring it into a more manageable condition. Or, if you have space, you can tie down the long growths to within 2 feet of the ground. They will then send out a number of growths all along the rods, and the majority will bloom.

INJURY TO ROSE FOLIAGE (*G. H. G.*).—The leaves sent have been attacked by the Rose slugworm, the larvæ of one of the sawflies. We advise you to spray the bushes with nicotine wash or Hellebore wash. As the plants have been badly attacked, you should take the precaution in the winter to have the surface soil removed and burnt or buried deeply, and fresh soil put on to take its place.

NAME OF ROSE (*A. A.*).—The Rose is, we believe, Mme. Audot, one of the Alba Roses; but it was somewhat damaged, so that we are unable to be quite certain about it. If you could send us another flower with a bud and a piece of growth we should be glad. We quite agree with you regarding the beauty of many of these old Roses, also their delicious fragrance, and, as you say, they far surpass many of the scentless productions of the present day.

ROSE KING GEORGE V. (*E. T.*).—Messrs. Hugh Dickson of Belfast are the raisers of the above fine Rose, which is quite distinct from George Dickson, one of the greatest Roses ever produced by the celebrated raisers, Messrs. Alexander Dickson and Sons of Newtownards. George V. is an intense velvety, blackish crimson, one that does not turn blue, as so many very dark ones will do. George Dickson is a velvety, blackish crimson, an immense flower and very double. Frequently blooms fully 5 inches across are obtained from it, of the highest exhibition quality. It is undoubtedly a splendid Rose, and one well worthy of its introducers.

ROSE-BUDS NOT OPENING (*Zedox*).—We can only suppose you have injured the buds by spraying too rashly. We believe this spraying is frequently overdone, and if carried out when the sun is out is apt to injure the buds. All the sorts you name should have opened all right, and as you say growth is good, we cannot explain it in any other way. It will be best to remove the injured buds and trust to the second crop opening better. Perhaps during the dry spell we had in April and May you did not water the plants. It is always advisable to water newly-planted Roses with plain water, then with weak liquid manure a day or two afterwards. This should be repeated two or three times between May and the end of June.

GRUSS AN TEPLITZ (*Nedyob*).—We think, if you have given the plant heavy doses of Wakeley's Manure and Plantoids this will explain the reason of it not growing. You have been too generous, and have destroyed the young roots. The Duke of Edinburgh has been pruned too hard. The growths should be retained fully 2 feet in length, as it is almost a semi-climber. It may bloom from the ends of the long shoots, and will possibly throw out laterals later on, which may also bloom. The Honey-suckle should be spread out as much as possible, and the Lilac and Syringa pruned rather hard at once; this will tend to the production of new wood that should blossom next year.

THE GREENHOUSE.

CARNATIONS (*C. R.*).—There are three very distinct sections of Carnation, and the three need different treatment, both as to their propagation and after-culture. The three classes are perpetual-flowering, border and Malmaison Carnations. The perpetual-flowering are increased by cuttings put in during the early part of the year, the border varieties by layering in the open ground as soon as the blossoms are over, and the Malmaisons by layering under glass in the month of July. We think you were misinformed as to the Carnations which you obtained at the date named having been cut from the open, it being too early for that. The specialists who grow these plants in quantity for the supply of cut flowers depend almost entirely upon the perpetual-flowering varieties, and even the border kinds that are so freely exhibited are in most cases brought on under glass. Carnations need a light structure with plenty of air, and they are not seen at their best when grown with a miscellaneous collection of plants.

ORCHIDS (*W. S. W.*).—1, *Saccolabium giganteum*.—This Orchid must be kept moist at the root throughout the year, the greatest quantity being required during the summer months. Shade and a warm, moist atmosphere are also essential. 2, *Dendrobium densiflorum*.—When the pseudo-bulbs are fully matured, only give sufficient water to keep them from shrivelling. Plenty of light is necessary, but this must not be overdone. During the resting period a dry house, where the temperature varies between 50° and 60° Fahr., will suit them best. 3, *Cypripedium Jasum*.—We take it you mean a *Cypripedium*, and if so it requires similar treatment to the *Saccolabium*; but it ought never to become excessively dry at the root. 4, *Dendrobium formosum giganteum*.—This is an autumn-flowering species, and should be kept moist at the base till the scapes are removed, when it enjoys a long rest under slightly cooler and drier conditions. To be successful with your Orchids, observe the following: Repot when growth and root action begin, if such an operation is deemed necessary. Shade from strong sunlight. Give a moist, buoyant atmosphere while growing, and an average

temperature of 65° Fahr. Less water is required both at the root and in the atmosphere during the winter months, also after the season's growth is complete.

SPECIMEN FOR IDENTIFICATION (*S. S. F., St. John's Wood*).—The plant is a rather common hardy herbaceous border perennial, and as such requires no shelter or protection of any kind. It is known as *Tradescantia virginica*; but as no flowers were present, we are unable to tell you the name of the particular variety submitted. There are several good kinds, blue, white and rose being of a representative order, and all are quite easily grown in ordinary garden soil. The several varieties of the species are readily increased by division of the clumps in spring or early autumn, and may be purchased quite cheaply from the hardy plant dealers who advertise in our columns.

MISCELLANEOUS.

TINY BLACK INSECTS (*J. W.*).—By the time the box reached us the tiny black insects had all escaped; but from what you say we suspect they are probably spring-tails. These insects are suspected of doing damage to underground parts of many plants, though the evidence is not very conclusive. It would probably suffice to use one or other of the soil fumigants, such as Aphol or Vaporite, to get rid of the pests.

CROQUET LAWN (*A. B. C.*).—It seems a pity to disturb the lawn if you have a good level piece of turf. Constantly mowing the grass with a lawn-mower will in time kill the Couch Grass. Another plan would be to dig out with a fork as much of the Couch Grass as you can, and sow seeds in the vacant ground. Even if you rooted up the lawn with a plough and sowed seeds, most of the Couch Grass would grow again unless you forked it out. Clover in the lawn should be no detriment if you mow frequently. It would not be possible to play much croquet on newly-sown grass the first year till towards the end of the summer.

NAMES OF PLANTS.—*R. M., Dunkeld*.—*Veronica scutellata*.—*R. W. F., Southampton*.—Not Indian Horse Chestnut, but the Shrubby Buckeye (*Æsculus parviflora*), a native of the South-Eastern United States.—*Cambs.*—Rose Mme. Segond Weber. —*J. H. J., Notts.*—*Heliopsis laevis*.—*R. D. F. Royal*.—*Hyoscyamus niger* (Henbane).—*F. Winton*.—1, *Campanula sibirica*; 2, *Pentstemon confertus*.—*Rhagatt*.—*Potentilla fruticosa*.—*T. P.*—*Eucomis pallidiflora*.—*G. B.*—1, *Polygonum cuspidatum*; 2, *Spiraea Menziesii*; 3, *Epilobium angustifolium*; 4, *Solidago canadensis* (Golden Rod); 5, *Helianthus rigidus*; 6, *Sidalcea spicata*; 7, *Veronica longifolia alba*; 8, *Physostegia virginiana*; 9, *Pellionia pulchra*; 10, *P. daveauana*.—*P. H.*—1, *Anthemis nobilis flore pleno* (Double Chamomile); 2, *Spiraea palmata alba*; 3, *Campanula portenschlagiana*; 4, *Cimicifuga cordifolia*; 5, *Chelidonium majus* (Celadine); 6, *Astrantia major*; 7, *Malva Alcea*; 8, *Alchemilla vulgaris*.—*Mrs. C., Aberdeenshire*.—1, *Francoa appendiculata* (Bridal Wreath); 2, *Gentiana asclepiadea* (Willow-leaved Gentian); 3, *Anaphalis margaritacea* (Pearly Everlasting).—*R. T.*—A, *Eucalyptus globulus*; B, *Olearia Haastii*; C, follow instructions given in the number of THE GARDEN mentioned (January 27) for Androsaces and suchlike plants, but for Primulas use a little more soil.

SOCIETIES.

THE BRITISH PTERIDOLOGICAL SOCIETY.

THE annual meeting of this society was held this year at the Albion Hotel, Arnside, Westmorland, on August 5, when a good number of members were present, Mr. Alexander Cowan of Penicuik, as president, taking the chair. Many of the members assembled on the Friday preceding the meeting in order to arrange some Fern-hunting expeditions in the vicinity; but owing to the distance which it was necessary to travel to reach good ground, and, still more, to the terribly cold and wet weather which prevailed during their stay, no "finds" of any special note can be recorded. Subsequently, in view of the first drawback, it was resolved that Devon or Dorset should constitute the area for hunting on the occasion of the next meeting, since not only are the species there much more numerous than in the North, but Ferns generally are far and away more abundant. At the meeting the hon. secretary, Mr. Charles T. Drury, reported that the society was now represented by no fewer than 150 members, and that as a consequence the funds were in a very satisfactory position, fully justifying the establishment under his editorship of the *British Fern Gazette*, the illustrated quarterly issued to members, the first volume of which, representing three years' issues, has just been completed. It was acknowledged on all hands that this gazette, which now represented the first permanent serial publication devoted entirely to our British Ferns and their varieties, and was contributed to by the editor and many of the members, was a very practical, valuable and up-to-date contribution to the standard literature of the cult. A vote of thanks to the president and officers, who were re-elected *en masse*, was supplemented by a special one to the editor, together with a testimonial in recognition of the services rendered by him to the society and to such Fern-lovers as contributed thereto. A large number of fronds of very beautiful Ferns, some new "finds" and some improved raised varieties, were exhibited, and displayed, in many cases, some most extraordinary advances in the development of those varietal charms, which in our native Ferns far and away excel all exotics in diversity and rival the best in beauty. The hon. secretary, whose address is 11, Shaa

Road, Acton, London, W., will be happy to send a sample copy of the gazette to anyone desirous of joining the society, the subscription to which is only 5s. per annum (August to August), and entitles not merely to Fellowship with an ever-increasing number of Fern experts and lovers, but also to four issues of the gazette, of which Volume II. will commence in September.

KIRKCUDBRIGHT HORTICULTURAL SOCIETY.

THE annual show of the Kirkcudbright Horticultural Society was held in the Town Hall, Kirkcudbright, on August 9. The show was an excellent one, although the exhibits were fewer than those of last year. Pot plants, though limited in numbers, were good; cut flowers were very finely shown; fruit was of high quality; and vegetables, always well shown here, were capital. In the gardeners' classes, Mr. W. Brown, Shillinghill, won in most of the pot-plant classes; but Mr. J. Duff, Threave Gardens, received the first prize for a handsome and tastefully-arranged table of plants.

Mr. B. Rutherford, Glenlair Gardens, was first for plants for table decoration. There was a stronger competition in the classes for cut flowers, and interest largely centred in the Roses, widely grown in the district, and Sweet Peas. Mr. Rutherford won the special for twelve bunches of Sweet Peas in twelve varieties with fine flowers. The first for Hybrid Perpetual Roses went to Mr. J. Duff, and for Hybrid Tea Roses to Mrs. Stewart, Ormokenoch. Mrs. Stewart, Mr. Duff, Mr. J. Scott (Barwhinnoch), Mr. J. Walker (Parkhouse Gardens), Mr. R. Webster (Tongland), Mr. W. B. Rogerson (Bombie) and Mr. J. Watret (Twynholm) were the winners of the other firsts.

In the fruit classes the Grapes were good, Mr. J. Duff and Mr. Rutherford carrying off the first prizes between them. Mr. Rutherford had the best Peaches, and Mr. Duff the best Nectarines and collection of Apples, while the former won for the collection of fruit.

With vegetables Mr. W. Brown, Mr. R. Middleton, Mr. J. Hannah and Mr. J. Duff were among the most successful. Amateurs made a strong section, and in all the departments there was a good show. Considerations of space prevent details of this section.

EDINBURGH WORKING-MEN'S FLOWER SHOW.

ONE of the most useful of the horticultural activities of Edinburgh consists of its Working-Men's Flower Show, which does admirable work by encouraging gardening among the working-classes of Edinburgh, just as the important shows of the Royal Caledonian Horticultural Society and the Scottish Horticultural Association do for horticulture in general. This society has existed for no fewer than forty-eight years, and, judging from the exhibition in the Corn Exchange on August 10, it is as virile as ever. About one thousand exhibits were staged, contributed by about one hundred and fifty competitors, who are limited to *bona-fide* working-men. All kinds of horticultural produce which can be grown by the classes who form the *clientèle* of the show are represented, and a feature of special value is the competition limited to residents in the smokiest part of the Edinburgh area. For these classes the Mackenzie prizes are offered, and it is surprising what beautiful window-boxes and plants are to be seen. About seven hundred and fifty prizes are offered at this show annually, and the exhibition of 1912 ranked high in the annals of the show and reflected high honour on the exhibitors. The principal prizes were presented by Councillor Inches, convener of the Parks Committee of the city, who made an interesting and encouraging speech. The Lord Provost, who is president of the committee, sent a letter of apology.

EAST ANGLIAN HORTICULTURAL CLUB.

AT the August meeting of this club, held at the Boar's Head Hotel, Norwich, Mr. W. Rush, the president, read an interesting paper on "Stove and Greenhouse Foliage Plants." Mr. Rush has a varied collection of these under his charge, and is thoroughly versed in the subject; consequently he was able to give some very practical hints on propagation and cultivation. The good discussion which followed showed that the members interested themselves in the subject. There was a fine exhibition of flowers, fruits and vegetables. A special feature was the collection of Apples of 1911 growth, which Mr. Frank Neave, Lingwood, staged side by side with those of 1912 growth. The collection of fruit from Mr. W. Shoemith, gardener to F. W. Harmer, Esq., Cringleford, was striking evidence of good cultural skill.

KIRKCALDY HORTICULTURAL SHOW.

THE annual two days' show of the Kirkcaldy Horticultural Society was opened in the grounds of Raith House, kindly granted by Mr. Munro-Ferguson, M.P. The show was an excellent one in practically every department. Roses were very fine for this show. Sweet Peas were largely shown and of good quality. The Pansies were also exceptionally fine. Pot plants were of high merit, and vegetables were also keenly competed with. In the nurserymen's classes Messrs. Guthrie Brothers led for twelve bunches of herbaceous flowers with a nice variety well chosen and grown. Mr. W. Ness was second. Roses were very well shown in this section, and Mr. W. Ferguson, Dunfermline, came first for thirty-six. Messrs. D. and W. Croll, Dundee, were second, and Messrs. E. Sang and Son, Kirkcaldy, third. Mr. D. M'Omish, Crieff, was first for a table of cut flowers, Messrs. Guthrie Brothers coming second. In the gardeners' classes Mr. J. A. Dow, Dalmeny, led for eight vases of Sweet Peas, Mr. J. Wright coming first for vases of cut flowers. In other cut-flower classes Mr. J. Anderson, Kinglassie, Mr. J. E. Sproston, Mr. D. Leishman, Mr. T. Christie, Mr. H. Chalmers, Mr.

J. Skinner, Mr. W. Blyth, Mr. W. Ness and Mr. J. R. Biggar were among the leading winners. For pot plants Mr. W. Ainslie, Mr. J. Hutt, Mr. H. C. Lawson, Mr. J. R. Biggar, Mr. J. E. Sproston, Mr. J. M. Laren, Mr. J. Anderson, Mr. F. Weir and others took the leading places. In the fruit classes Mr. W. Brown and Mr. W. Ness were the chief prize-winners. The vegetable prizes were well divided, but Mr. J. M. Gregor was awarded the prize for the box of vegetables. Much interest centred in the special prizes. Mr. J. Anderson, Kinglassie, won Sir Michael Nairn's Nairn Challenge Cup for cut flowers. The Kirkcaldy Corporation Medal for Sweet Peas was won by the Rev. S. Crabb, Cupar; the Constable Medal for Carnations went to Mr. J. E. Sproston; the Ryder Medal to Mr. A. Chalmers; and the Toogood Silver Shield to Mr. G. Anderson.

OBITUARY.

ALEXANDER DEAN, V.M.H.

It is with the very deepest regret that we learn, just as this issue is going to press, of the death of this noted horticulturist, which occurred at his residence, Richmond Road, Kingston-on-Thames, at 7.30 a.m. on Tuesday last. The deceased was born on March 22, 1832, and up till the International Show in May last had enjoyed excellent health. For some weeks past he had been confined to his bed, and was unable to see any but his most intimate friends. When visiting him about three weeks ago we found him, though very weak physically, keenly interested in the National Vegetable Society, and he discussed freely the disqualifications at the National Sweet Pea Society's recent show, as well as several other horticultural matters. Practically the whole of his life has been devoted to horticulture, his first initiation into gardening on a large scale being in 1849, when he entered Westwood Park Gardens, Southampton, under a well-known Scotch gardener, Mr. John Coulthart. He acted as secretary to the remarkable gathering of British gardeners which was held at the Holborn Restaurant in 1903. Under the initials of "A. D." or "D." he contributed freely to our pages, some notes of his appearing in the first issue that was published, and we mourn his loss not only as a noted horticulturist, but as a personal friend. During his illness he was assiduously nursed by Mrs. Dean, who is his senior by one year, and by his daughter, and to both we tender our very deepest sympathy in their sad loss. The following has been sent to us by a veteran horticulturist who was associated with Mr. Dean during the greater part of his life:

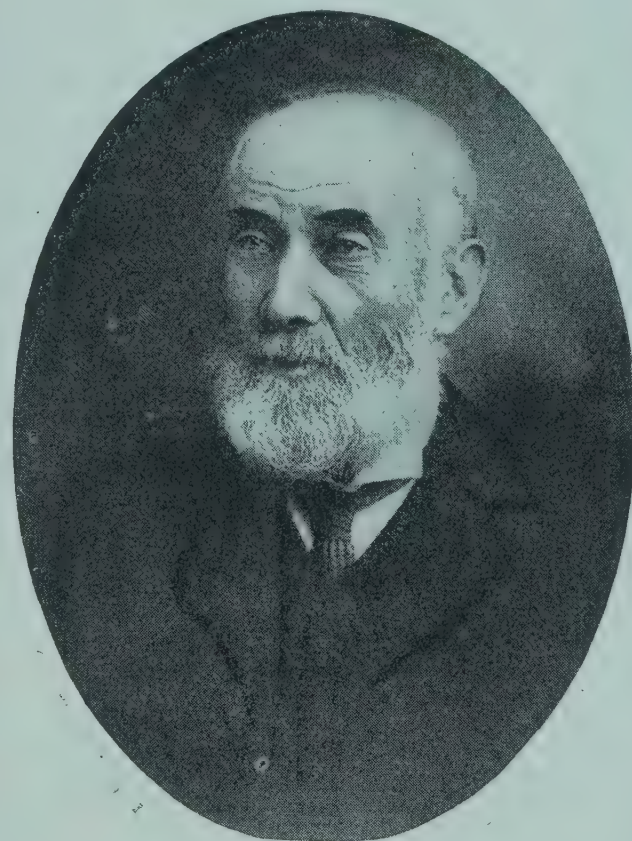
"Four Deans in horticulture will be remembered. The greatest of all was the famous Dean Hole of Rochester, who did yeoman's work for THE GARDEN in its early days and long before he attained the higher ecclesiastical dignity indicated. When I first knew him he was a country Vicar with a garden in which Roses luxuriated. He had even before my visit in the long ago initiated the first Rose show at Nottingham. He was thus the founder of these shows, and subsequently established the first 'Grand National Rose Show' in London fifty-four years ago.

"We now come to the second Dean, who has just been called to rest from his labours. This is Mr. Alexander Dean, V.M.H., who was thus honoured for his services over a number of years as an active and useful member of the fruit and vegetable committee of the Royal Horticultural Society. He was a most sedulous attendant at the fortnightly and other meetings, and his very long experience and keen critical mind rendered his services valuable; hence the honour of the Victoria Medal of Horticulture, which is the greatest a gardener can obtain.

"He was the son of a nurseryman in Hampshire, who evidently gave his 'boys' a good rudimentary education. There were three of them. The eldest youth, William

Dean, became a florist in a small way of business at Solihull and Shipley. The second, Richard, was much better known in London. He was Dr. Hogg's assistant-secretary at the first great International horticultural exhibition held in London in 1866, and subsequently had a small nursery in Middlesex. He was a regular Press writer on horticultural subjects. The third and youngest son, Alexander, first started a seafaring life, but eventually settled down with his brother Richard. He devoted himself to the raising of Potatoes, especially coloured varieties, one of the best of which, a coloured round, commemorates his name as The Dean.

"The subject of these notes eventually became a great authority on Potatoes, and conducted trials with many varieties. He was eventually largely employed as a lecturer on gardening and judge of gardens and shows in Surrey under the auspices of the Surrey Education Committee. For these duties he was admirably adapted, as he was a fluent speaker and excellent cultivator. He was also a very ready and correct writer, and until quite recently he was heard to say that not one issue of THE GARDEN had appeared without a note



ALEXANDER DEAN, V.M.H.

of some kind from his pen. Mr. Alexander Dean succeeded in establishing the National Vegetable Society, of which body he was chairman until failing health compelled him to resign."

United Horticultural Benefit and Provident Society.—The monthly committee meeting of this society was held at the Royal Horticultural Hall, Westminster, on Monday evening, August 12, Mr. Thomas Winter in the chair. Ninety-one new members were elected, making about three hundred since July 8. Mr. W. Collins is resigning the secretaryship on September 9, and Mr. A. C. Hill of 35, Alexandra Road, West Kensington, W., has been appointed secretary *pro tem.* until the next annual meeting, when it is hoped that he will be appointed permanent secretary.

Chinese Minister's Visit to an Essex Seed Farm.—Quite recently His Excellency the Chinese Minister, Lew Yuk Lin, accompanied by his two daughters and Mr. and the Misses Lew and one of his attachés, spent the day in visiting Messrs. John K. King and Sons' seed farms at Coggeshall, Essex. We learn that under the guidance of Mr.

Herbert King, the sole partner in the firm, and Mr. J. H. Millard, general manager, under whose direction experiments and selections are carried out, the whole system of pedigree selection was minutely described, and was listened to with the keenest interest by the distinguished visitors.

"Country Life" for August 24 contains, among other articles, an illustrated account of "Vinton Castle, East Lothian"; "Tales of Country Life: The Hostages," by J. M. Dodington; "A Caravan Tour in the Highlands" (illustrated), by Ward Muir; "A Successful Kennel" (illustrated), by Douglas Cairns; "Treatment of Distemper," by A. Croxton Smith; "Skirrets," by Frank Schloesser; "The Reclamation of Chartlay Park."

HORTICULTURAL APPOINTMENT.

MR. HARRY FOSTER, who succeeded the late Mr. Charles Foster as Director of the *Times* Experimental Station, Sutton Green, Guildford, has been appointed assistant to Mr. Walter P. Wright, Horticultural Superintendent and Instructor in Practical Gardening to the Kent Education Committee. Mr. Foster's many friends will wish him every success in the important duties, upon which he enters about the middle of September.

CATALOGUES RECEIVED.

Messrs. C. S. Daniels and Son, Wymondham, Norfolk: Choice Plants.
Messrs. J. Graves, Limited, Sheffield: Sheffield Cutlery, including Garden Knives, Grape-thinning Scissors, &c.
Mr. George Stocks, 44, Bentley Road, Doncaster: Daffodils and Carnations.

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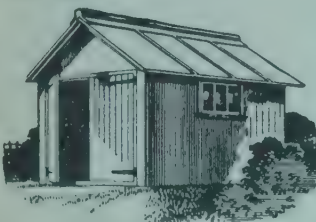
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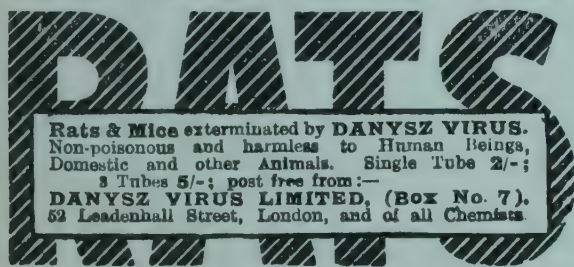
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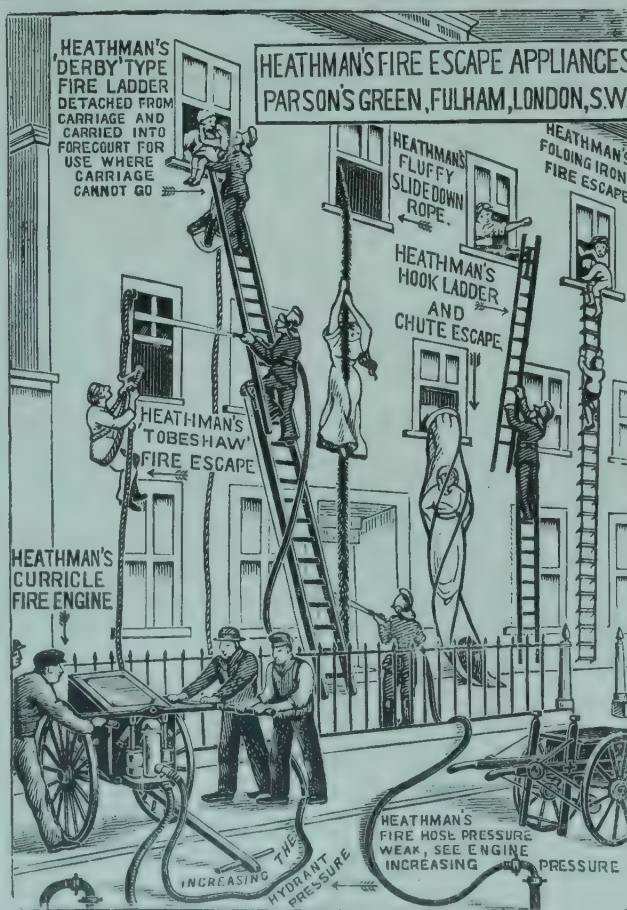
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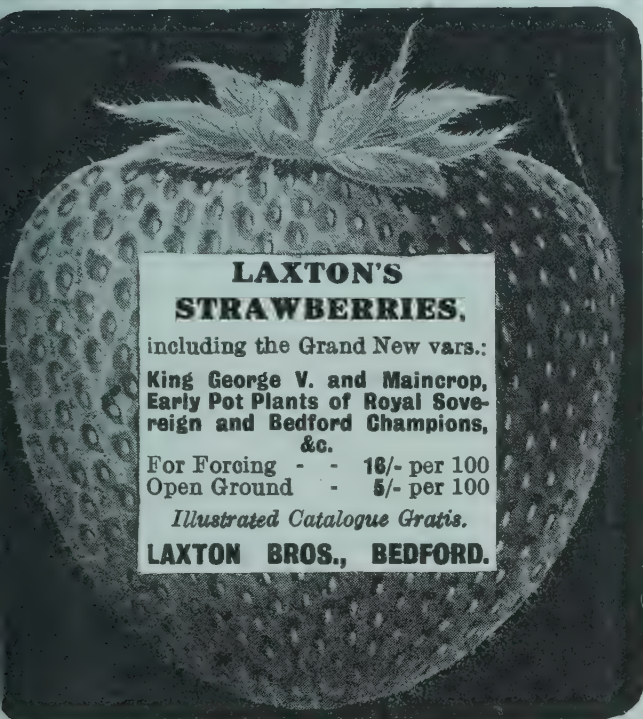
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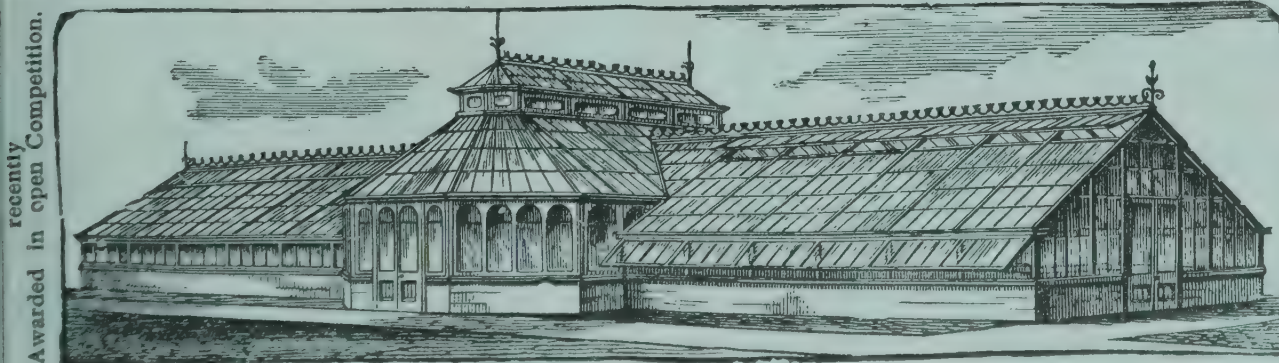
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THE GARDEN.

No. 2128.—Vol. LXXVI.

AUGUST 31, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.

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NOTES OF THE WEEK.

Honour for a Nurseryman.—Mr. Henry Merryweather, head of the well-known firm of Messrs. H. Merryweather and Sons of Southwell, Notts, has been appointed a Justice of the Peace for the county of Nottinghamshire.

Our Rose Articles and Coloured Plates.—To avoid confusion, all articles written by our contributor who has hitherto signed them "P." will in future appear over the signature of "Dane-croft." In response to the request of a number of our readers, our coloured plates will in future be published as separate sheets. They will not appear on the cover except on special occasions.

Linaria alpina rosea.—This is one of the prettiest of alpinists now in bloom, and which has also been flowering for some weeks past. The flowers are coloured a rosy pink, which is in contrast with a rather rich orange-coloured palate. The glaucous grey of the frail, almost succulent leaves and stems is also a feature of the plant, which is well suited to colonising in stony soil on the rockery. Occasionally the plant is seen to do well on old limestone walls, and anywhere it is both pretty and distinct.

A Hardy Pelargonium (P. endlicherianum).—If only because of the distinct beauty of its rosy and white flowers and the fact that in favoured places it is one of the most profuse of summer and early autumn flowering plants, this, the only species of the genus possessing any claim to hardiness, is worthy of every care. In Southern or South-Western England the plant may be safe in the open; elsewhere it may be well to lift it each year. The species is one of comparative rarity, though growing moderately well in sandy soils.

A Beautiful Evergreen Shrub.—In those favoured gardens where Desfontainea spinosa will thrive it should be encouraged to the full, because of the rare combination of scarlet and gold with which its tubular flowers are robed. These, brilliant and exceptional as they are, appeal the more strongly by reason of the striking contrast of the dark olive green leaves, and which constitute so good a foil to the flowers. In short, this too-little-known evergreen shrub is a plant of wondrous beauty and charm.

Clematis chrysocoma.—This very rare and exceedingly beautiful Clematis was many years ago known in this country, but was, unfortunately, lost to commerce. Recently it was reintroduced from China, where it was found in the high altitudes of the Yunnan Alps. It belongs to the subshrubby section, and is perfectly hardy. The four-petalled flowers are produced on 3-inch stalks from the axils of the leaves, and are 2 inches to 3 inches across, white, with a slight suffusion of rosy lilac. The foliage is slightly woolly, like the leaves of the lanuginosa type, and, growing only

about eighteen inches high, it promises to become a very acceptable pot plant. It is not yet sufficiently propagated to be put into commerce, but next year may possibly see it listed.

Saxifraga cæsia.—A nice tuft of this well in flower has just arrived from Switzerland, which says much for the lateness of the season there this year. Quite heavy falls of snow, we are informed, were experienced in early August, with much cold and wet. In this country the pretty white-flowered Saxifrage referred to usually flowers in June. It is one of the miniatures among silvery kinds.

A Double-flowered Tunica.—If not the plant for effective display at a distance, the pretty carpeter and trailer, Tunica Saxifraga flore pleno, is desirable because of the pinkiness of its "rosy" flowers. Thin and wiry of growth—not enough of it to please some—it is welcome to those who like to have all classes of plants—some for display and others to interest—so that their rock gardens may contain food for the mind as well as the eye. This pretty plant asks for nothing more than gritty loam and a fairly deep root-run.

Variation in Black Currants.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Messrs. J. R. Pearson and Sons wrote that their Black Currant bushes were similarly affected to those mentioned on page 385 of our issue dated August 3, but that the trouble was not due to pruning. A letter on the same subject was read from Mr. E. Ballard, who suggested that forcing by too much manure or too hard pruning was the cause of the "throw back," or sporting, in Black Currants, and that the trouble is common among the Worcestershire growers.

Tamarix pentandra.—This is one of the daintiest of July and August flowering shrubs, for in habit it is light and graceful, while its tiny flowers, which are a delicate shade of rose, are very pretty. Although the plant had been known previously, it was brought prominently to notice about eleven years ago, when it was figured in the *Revue Horticole* under the name of *T. hispida æstivalis*. Subsequently it was called *T. Pallasii rosea*, but it is now known under the name which heads this note. Growing 3 feet to 4 feet high, it produces plumose branches clothed with bright green leaves, and among these the flowers are freely interspersed, the upper half of each shoot being covered with blossoms. The plant is usually cut hard back in spring, thus enabling shoots 3 feet long to be formed each year, for it is from strong young shoots that the best results are obtained. The branches removed during January are excellent for cuttings. These, cut 9 inches long and placed in the open ground in a similar manner to Currant cuttings, root during the following summer, and in two years' time form excellent flowering plants. Good loamy soil suits this Tamarisk, which is equally useful for seaside and inland gardens.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Calceolaria hyssopifolia.—Under this name a kindly-disposed correspondent sent me in spring a *Calceolaria* which has given much pleasure during the summer, and it is still in flower in the open. I fear, however, that it will not prove hardy, as I find that it is a native of Chili and Ecuador. It is quite pretty, with its narrow, rather glossy leaves and yellow and canary flowers. It is of shrubby habit, and should be a good subject for growing under glass or for planting out in summer. Here it is about a foot high, but I am told that it will grow to 2 feet. It is not a new species, but is not to be seen every day.—S. A., *Dumfries*.

Roses Lady Gay and Dorothy Perkins.—With regard to the correspondence in your columns as to the relative merits of these two Roses, may it not be that the difference of opinion arises from the way the plants have been propagated? Some people strike these from cuttings. Lady Gay does not succeed well in this way, and the plants are not long-lived. Others work them upon unsuitable stocks. Grown properly, I do not think there is much to choose between the two, but I prefer Minnehaha to either. The blooms are a brighter pink and are carried in sprays instead of close clusters, giving a more elegant appearance. Also it is a splendid doer, either as a climber or standard.—A. H. PEARSON, *Lowdham, Notts*.

Sweet-scented Musk.—The old-fashioned strong-scented Musk with small yellow flowers used to be grown by nearly every cottager in the country, and I used to see odd plants regularly in windows. Possibly some reader of *THE GARDEN*, seeing and reading "A Regular Subscriber's" letter on page 411, issue August 17, will communicate with the Editor, and in this way disclose the whereabouts of some pots of real old-fashioned Musk. Some years ago I noticed a clump of it in a herbaceous border in a large garden I had charge of. It was under the partial shelter of a Magnolia tree, but it flowered freely every year. I fear this clump was accidentally destroyed by some of the workmen while making alterations in this particular border. Plants in pots will live and flourish for ten or fifteen years without being disturbed. Readers will be interested to learn, through the Editor, particulars of the plant in question. There is no difficulty in procuring plants of the non-scented Musk with small yellow flowers.—SHAMROCK.

—With reference to "A Regular Subscriber's" query as to sweet-scented Musk and the Editor's remarks thereon, I would also like to say that I have for some years past bought plants from numerous advertisers who pretended to have the scented variety, but in every case they were not scented, or very slightly so. I should, therefore, be glad if any advertiser or reader of *THE GARDEN* could inform me where I could get a plant of the genuinely scented variety. No doubt it is to be found somewhere, probably in a cottager's home or in that of a country nurseryman.—A. SAUNDER, 6, *Holmewood Gardens, Brixton Hill, S.W.*

Paulownia imperialis after Flowering.—The excessive heat of last summer, combined with favourable conditions this spring, were undoubtedly the chief reasons why *Paulownia imperialis*, with its huge spikes of lavender blue flowers, was such an

attractive feature during June of this year in the few gardens in which this handsome Japanese tree is grown. In most cases it would now be laden with an unusual crop of fruits, which are ovoid, acuminate, and about an inch long. These should be removed for the benefit of the tree, as they would take a lot of nutriment from it, and the seeds seldom come to maturity in this country. This operation should be done with great care, for quite close to the bunches of fruit the flower-buds are already formed for next season's display, providing they can survive the winter and late spring frost.—F. G. PRESTON.

Matthiola bicornis.—For a number of years it was my duty to supply many plants possessing fragrant foliage or fragrant flowers, and I was well served by this small but deliciously-scented flower. Like your correspondent the Rev. Joseph Jacob, who has drawn special attention to the plant on page 410, issue August 17, I used to scatter the seeds thinly on the surface of the soil and rake them in. At first I made the mistake of sowing the seeds too thickly; result—decay of overcrowded plants in bad weather. The present summer has been very favourable to this plant. On account of the flowers closing during bright days, I used to scatter a few seeds of Mignonette among those of the Night-scented Stock, as it is commonly called; and, furthermore, I have also had Zonal Pelargonium King of Denmark planted 2 feet apart in the same bed, so that there was never any lack of blossom in it.—B.

Sending Seeds and Plants Abroad.—Though an ardent American, I have for many years bought, and encouraged others to buy, seeds, bulbs and plants from British dealers and growers. This I believe to be a vital stimulant for our own growers and seedsmen. May I through these columns, however, give a word of advice concerning the best methods of sending from England to this country? The Parcels Post is the medium, the conveyor. Though an order must be divided into several parcels if the plants sent are of such character as Delphiniums or Pyrethrums, no method of transportation is safe except the Parcels Post. Under no circumstances should one permit the express companies to forward such an order. The delays in New York would almost invariably mean death to the piteous occupants of the box or parcel. To prove my faith by my works, I enclose a small picture of *Myosotis* from Sutton's seed in my garden last May. You are at liberty to publish it if you wish.—(Mrs.) FRANCIS KING, *Orchard House, Alma, Michigan*. [Unfortunately, the photograph, which depicted excellent plants, was not sharp enough for reproduction.—ED.]

Preparing Lobelia for Winter.—The hints given by "B." (see issue August 10, page 405) for preparing and keeping Lobelia through the winter are well enough so far as they go, but they do not go quite far enough; hence I make no apology for the following by way of supplementing them. For some years I had to provide any number from 25,000 or 30,000 upwards, and did it as follows. Quite early in August—sometimes in July—when the first flush of blossoms was past, the plants were cut down to within an inch of the soil, and the latter being lightly pricked up, the surrounding surface, as also the newly-cut-down plants, were given a mulching of finely-sifted, sandy and rather rich soil, which was subsequently gently watered to settle it down. With the lapse of two or three weeks both new growth and new root-fibres were abundant, and at any convenient time the plants

were lifted, divided up as freely as possible, and planted an inch apart in shallow boxes of rich sandy loam. Consigned to a frame—a manure frame with declining or exhausted heat for preference—and thoroughly watered, the young plants started into growth immediately, and, cut over with scissors once or twice subsequently, usually covered the boxes by October in much the same way as those bedded out in summer. I always found Lobelia so treated to delight in ample supplies of water, and to such an extent that the branches sent out rootlets with great freedom. In this way a large percentage of the early cuttings were of the Irish standard, *i.e.*, ready-rooted ones. Six or a dozen plants treated as above would be ample for most amateurs, while for the large number I had to provide, 100 plants always gave sufficient, and were planted in reserve for the purpose. The material difference of "B.'s" plan as compared to my own is that "B." relies upon the partly-resuscitated vigour of the old plants, while I go in for the creation of an entirely new plant, characterised by the freshness, vigour and growth freedom of youth.—E. H. JENKINS.

Judges Judged.—Having been asked to give my opinion upon this subject, I now do so, but quite irrespective of the case of the Sweet Peas that gave rise to the question. Every judge should do his best to correctly interpret the strict reading of the schedule as it pertains to the rules and regulations laid down therein. Wherever I have had any doubts upon this point, my plan has been to consult some responsible members of the committee. If a schedule be not sent me when I am invited to act as a judge, I always request that one be sent upon my acceptance of the invitation. Then, in my spare moments—possibly upon my journey, if not before—I read the schedule up and look out for all moot points in particular. These I carefully note and consult my colleague upon. Sometimes a rule may be read in diverse ways, either in favour of the exhibitor or in favour of the society. Such cases have to be well thought out. No judge should ever act without studying the schedule previously. When any society invites a judge to act, it is always better to there and then send a schedule so that it may be considered. After the awards have been made, more particularly in a keen competition, every judge should be able to give his reason definitely for the decisions arrived at if he be called upon to do so by the society. I do not, however, believe in doing this to every exhibitor without a cogent reason. No society should impose upon the judges any kind of work not immediately associated with the actual judging. By this I mean such as sticking on the awards or in any unnecessary booking. All this takes time, which is too valuable to be expended in such work. Judging should always commence to time. The exhibitors themselves are often to blame for any failure to comply with this regulation. Judges are sometimes called upon to do unpleasant things, such as where absolute deception has been practised with the intent to defraud. On the other hand, I have had to deal with instances of palpable oversight, such as staging nineteen plants instead of twenty, or in putting one more fruit of a Pear, a Peach or a Fig upon a dish. In these instances I have asked the committee to either set the matter right themselves, or call upon the exhibitor to do so himself. In conclusion, let me say that all societies should do their utmost to make the rules and regulations as plain and explicit as possible. Then the judges should do their best to comply with the same.—JAMES HUDSON, V.M.H.

Japanese Irises.—I enclose a photograph of Japanese Irises growing here on the edge of my piece of water. They have been planted now a good many years, and invariably do well. I have to protect them with wire from rats, which are very fond of the tuberous roots. You may like to reproduce the photograph in *THE GARDEN*.—GEORGE DIXON, *Astle Hall, Chelford, Cheshire*.

Coreopsis verticillata.—This bright little Coreopsis is at present very pleasing in the garden of Mr. James Davidson, Summerville, Dumfries. Its light and graceful foliage is always pleasing, and, when well supplied with the pretty yellow flowers, a good plant is among the most useful of the border plants of July and August. In this garden it is less than two feet high. Not so well known or so large-flowered as *C. lanceolata*, it is a more perennial subject in most gardens.—S. ARNOTT.

Begonia carminata.—Of late years a considerable amount of attention has been directed towards the shrubby-growing Begonias and their value for various decorative purposes. Varieties such as President Carnot and Luzerna have of late made considerable headway in popular favour, while the old *Begonia coccinea*, a tall-growing species from Brazil, with large, pendulous clusters of scarlet flowers, is, as a rule, much better grown than it used to be. Between this just-named species and the white-flowered *Begonia Dregéi* the variety *carminata* was raised some years ago by Messrs. J. Veitch and Sons; indeed, it was given an award of merit on July 9, 1895. For greenhouse decoration during the summer months it is of considerable merit, while its season of beauty often extends well on into the autumn. It forms a neat, bushy specimen, which will bloom freely when from 18 inches to a yard in height. The flowers, which are borne in drooping clusters, are of a pleasing carmine rose tint. This *Begonia* is readily propagated from cuttings, and the young plants so obtained grow away freely. As a greenhouse flowering subject it is one of the most useful, and is deserving of extended cultivation.—H. P.

FORTHCOMING EVENTS.

September 4. — Carlisle and Cumberland Horticultural Association's Show and Fruit Conference (two days). Kelso Flower Show. Glasgow and West of Scotland Centenary Show (three days).

September 5.—Preston and Fulwood Horticultural Society's Show (three days). Dundee Flower Show (three days).

September 6.—Leek and District Horticultural and Agricultural Show (two days). Kilmarnock Horticultural Society's Show.

September 7.—Société de Horticulture de Londres Meeting. Chorlton-cum-Hardy Horticultural Society's Show. Waterhouse Flower Show.

THE ROCK AND WATER GARDEN.

PLANTING A ROCK GARDEN.

NOW is the time to plant a rockery, the earlier the better. It gives the plants an opportunity to become established before the winter sets in, and this specially refers to early spring flowering alpines, for they then give a better show of bloom. Where special care can be taken and protection given, rock plants can be planted in nearly any month of the year. A low rockery made in front of a herbaceous border or shrubbery can be planted to make a very effective display with dwarf alpines of bright colours



JAPANESE IRISES BY THE WATER-SIDE IN A READER'S GARDEN.

and spreading habit. There are many desirable plants with very free-growing habit which will become as bad as weeds if left to themselves. These should occasionally be trimmed up. Permanent rockeries should now be weeded, and in uprooting the weeds care should be taken not to disturb the roots of the alpines more than one can help. To have a successful rock garden, always secure plants with as long a flowering season as possible. Many plants are far ahead of others in this respect, and a very careful survey should be taken of a good collection.

Easily-grown Alpine Plants.—Alpine plants, which thrive well in any ordinary soil, are not grown so extensively in small gardens as they ought to be. Alpines can be obtained in a variety of colours, including white and rose to deep red or crimson. *Dielytra eximea* has reddish purple blossoms in drooping racemes, with a groundwork of Fern-like foliage, which gives the plant a beautiful effect. *Draba* forms a beautiful carpet, and usually flowers in April. In *brunicefolia*, yellow, and *dedeana*, snow white, we have two charming kinds. *Edraianthus* has flowers similar to the alpine Campanulas, bearing drooping, bell-shaped flowers of deep blue colour. *Epimediums* are charming rock plants, bearing small purple-crimson and yellow flowers and foliage of lovely soft green, which turns in the autumn to a most lovely bronze. Heaths (*Ericas*), which prefer airy situations, are very useful for the alpine garden. *Genista tinctoria flore pleno* is a native shrub with slender branches and pretty double yellow flowers. *Gentiana acaulis*, too, with its intense dark glowing blue flowers, must not be forgotten. *Geum Rossii* is an acquisition, with its finely-cut leaves and bright yellow flowers, as is *Gypsophila prostrata*, beautiful in its spreading masses and loose, graceful panicles of white or pinkish flowers. *Iberis Little Gem* and *I. stylosa* are two neat varieties of Candy-tuft, and as white as snow. *Hypericum* (Rose of Sharon) must not be overlooked. *Hutchinsia alpina*, a neat little plant with shining leaves and myriads of pure white flowers, when established becomes a dense mass. It should be given an open position facing south. Last, but by no means least, are the *Helianthemums* or Sun Roses. No plants put forth brighter colours than these. They will grow in any soil, and are not particular to position, though they like sun for preference. There are many varieties, ranging in colour from pure white to the palest pink, sulphur to deepest yellow and orange, and deep rose to darkest red. Alpine Phloxes, Campanulas, Sedums, and *Viola cornuta* and varieties are all easily grown, and will thrive in almost any soil and position. J. L. E.

ALPINE FLOWERS IN SEASON.

Among many plants now in bloom none is more interesting than the pretty *Campanula carpatica* White Star. This has large, pure white flowers of a very bold character, and makes an unusually fine display. It is growing in the moraine section.

Tunica Saxifraga alba plena is a pretty and quite an uncommon plant. It is very graceful and free blooming, and is making a fine show.

Lewisia Howellii is flowering for the second time. This is also in the moraine section. I might mention here that we have all the set, and these are growing freely and are apparently quite at home.

Pratia Arenaria, a small creeping plant, is growing and flowering in full sunshine, although many people grow it in shade.

Philesia buxifolia is flowering quite freely in a position sheltered from the sun. Its Lapageria-like flowers show up very beautifully.

Mitraria coccinea, in a similar position, is now a mass of flowers, the scarlet blooms showing to great advantage among its bright green foliage. It is quite a large plant, measuring 5 feet each way.

Opuntias in Variety have been, and are now, in great glory, and have produced a quantity of blooms. They are extremely interesting, so rarely do we find them in outside positions.

W. A. Cook.

Leonardslee Gardens, Horsham, Sussex.

THE FLOWER GARDEN.

THE MADONNA LILY.

THE most prized Lily of the garden, as it is also the most chaste, is the beautiful Madonna Lily,

as it were, by an environment well up to the standard of merit of the subject itself.

Such work might reasonably be called "planting for effect," and certainly far too much is done without any such aim or object. In the case of this Lily, however, such positions as those indicated may mean something more, the drier, poorer soils playing their part in keeping at bay—to some extent, at least—a leaf disease which is not infrequently of an overwhelming character when the plant is grown in richer soils and in more open places. The Madonna Lily is so prone to fail in what one might describe a good position, and succeed in quite unorthodox places and soils of a very diverse character, that no definite rule can be laid down respecting it.

Years ago the plant seemed quite indifferent to heavy soils or light or partial shade or full exposure, if occasionally, apparently by great height or vigour, displaying a preference to soils of a rather holding nature. It was not always so, however, and a long tenure of the soil or the reverse had almost invariably played a part. To-day, however,

periodical transplanting is suggested—far from it, since probably no Lily better repays for being left alone. Many, however, delight in adding to their existing stock, and all such should endeavour to get the work of planting done during the present month or as early in September as possible. In this way root-fibres and leaf-growth will be encouraged to develop in their season, and in turn enhance the chances of success. To delay the planting till late in the season or till winter has arrived is wrong, and one object of this note is to prevent a recurrence of work destined largely to result in failure and loss.

E. H. JENKINS.

SWEET PEA NOTES.

Coarse Flowers.—I have been pleasantly surprised at the comparatively few really coarse blooms that have come under my notice. The season has been one which would be expected to favour this in soils that were heavily dressed with organic manures and had concentrated fertilisers as supplements, but the fact remains that I have seen fewer than last summer. There have been unmistakable

indications of disappointment at shows when flowers on stems 20 inches or more in length were passed over for those shorter and infinitely more refined; but the march of education is steady if slow, and it seems probable that the ungainly, floppy caricatures of Sweet Peas have ceased to meet the approbation of the majority of judges. This is as it should be, for when once we lose the gracefulness, elegance and refinement of the Sweet Pea, its claim upon our affections will be gone. The delicious fragrance that was so characteristic of the older varieties is nearly lost. In a mass there is distinct perfume, but it is not as sweet as that of old and, unless I am much mistaken, there is not nearly the penetration about it. One wishes that this could be retrieved, but, failing that, the other charms of the flower must be retained inviolable.

A Six-bloom Stem.—A regular reader of THE GARDEN is proud of a six-bloomed stem, but unfortunately he does not give the name of the variety which produced it. He writes: "I picked from my garden a six-bloom Sweet Pea on August 23. Each bloom was perfect and each had a separate stalk. My gardener

thought it uncommon, having never seen a six-bloom one before. The blooms grew on a thick, rather flat stalk of good length, and did not appear to be two stalks growing together." There seems little doubt from my correspondent's own description that the stem was a fasciated one. These have been by no means uncommon this year, and I have heard of several sixes.

A Surrey Record.—When one speaks of Surrey in connection with Sweet Peas, one's mind involuntarily turns to Addlestone and Mr. Stevenson's wonderful record as a grower and an exhibitor; but the reader to whom I wish to allude now is Mr. A. W. Lambert, gardener to Mr. P. E. Pilditch, L.C.C., Bartropp Lodge, Weybridge Heath. With an interesting letter came two photographs which, although they are not quite suitable for reproduction in the pages of THE GARDEN, show clearly that



MADONNA LILIES, WITH A YEW HEDGE AS A BACKGROUND.

Lilium candidum, which is known to all. Not merely is it the admired of gardeners and gardening folk, since the poets of all ages have sung its praises, just as the artist has loved to paint it or the sculptor to reproduce, so far as is possible, somewhat of a sculptured beauty whose uniqueness none will deny. The best of such representations, however, fall very short of the real thing, and probably must for ever remain as examples of a "base, awkward imitation." In short, no picture of it could possibly equal the garden picture at its best—albeit that "best" is but rarely seen—the effect is best when the planting has been of the thoughtful order and care has been taken to so arrange the clumps or groups in near proximity to Holly or Yew or other dark-leaved subject, so that all the good of which the plant is capable stands out in bold relief—mirrored and framed,

the best-informed cultivators are seeking after a sign, and the most that can be offered includes a position of comparative dryness and not a little warmth, in conjunction with shallow planting and unmanured soils. Doubtless the disease which almost swept this unique Lily out of cultivation a score or more years ago greatly weakened the stock, a weakness from which no complete recovery has been made. But while one may not lay down dogmatic rules as to soil and other things, one can at least speak with emphasis upon the all-important matter of the

Time for Planting or Transplanting.—So nearly akin to evergreen is the Madonna Lily that only a short period of comparative inactivity exists between the flowering and the reappearing of a new basal leaf-growth, and the work of transplanting should be done at that time. Not that



MONTBRETIA STAR OF THE EAST, A NEW VARIETY
WITH FLOWERS $4\frac{1}{2}$ INCHES IN DIAMETER.

Mr. Lambert is an exceptionally skilful grower, and if he is not already a member of the National Sweet Pea Society and an exhibitor at its exhibitions, the sooner he remedies the fault the better it will be for his reputation. I am pleased to see that such excellent results are achieved at Bartropp Lodge on plants grown in the old-fashioned way on Hazel sticks. One picture shows a vase of three stems, including Mrs. Hardcastle Sykes with five blooms, Helen Lewis with six blooms, and Tennant Spencer with eight blooms, but the second and third named have every indication of being fasciated stalks. Mr. Lambert sends some interesting details about his collection, which comprises the best varieties in commerce, and I congratulate him on his success. His letter concludes with a reference to what he aptly describes as a Sweet Pea freak that carried no fewer than twenty buds.

Double Standards.—I do not suppose I shall be the first to inform the Sweet Pea loving public that the committee of the National Sweet Pea Society at a recent meeting decided that the prizes recommended by several judges for exhibits containing blooms with double standards should not be awarded. I am extremely glad of this. I am keenly alive to the disappointment that it will cause, but it is imperative that a society shall stand by the rules published in its schedule if it is to go on from strength to strength and retain the respect of its members. The point which we shall now await is the abolition of the rule or regulation which decides that the inclusion of flowers with double standards will disqualify. H. J. WRIGHT.

MONTBRETIA STAR OF THE EAST.

As described in our last issue, page 431, this remarkable variety has advanced by a single bound at least a decade from all its fellows, outdistancing the best of them in size, colour-tone and refinement. When shown at the meeting of the Royal Horticultural Society on August 13, it created quite a sensation, and received the high

award of a first-class certificate, a very exceptional mark of honour for a florist's flower. The individual flowers measure $4\frac{1}{2}$ inches in diameter, and are of a fine orange red tone, borne on branching spikes which promise a long succession of flowers. It was shown by that successful raiser of new Montbretias, Mr. G. D. Davison, The Gardens, Westwick, Norwich.

AN EARLY MICHAELMAS DAISY.

INDIVIDUALLY the flowers of *Aster acris* are not specially attractive, as they are so starry as to please comparatively few. Yet when seen on the plant in a mass they are valuable in the border, and one has even seen this Starwort employed in the exhibition stand with a distinct gain. Yet it is as a border or wild garden plant that it is best. Its defect is that it requires support, as it is almost hopeless to expect it to remain erect, unless in the most sheltered position, if unsupported by a stake. It forms such quantities of flower that the thin stems cannot support the weight of the inflorescence if there is much wind or rain. Unless the staking

is attended to timeously, the stems are twisted and a good plant of reasonable neatness becomes hopeless. If staked and tied in good time, it makes, however, a handsome plant, the small, neat foliage harmonising well with the starry purple flowers. There is a pink variety, and also a dwarfer-growing one called *A. acris nanus*, together with one called *A. a. dracunculoide* with large, pale lilac flowers. I am far from saying that *A. acris* and its varieties rank among the *élite* of the Starworts, but their early-flowering habit is acceptable to many, and one would be unwilling to lack their flowers in August. S. A.

PLANTING HARDY FLOWERS.

WHAT are hardy flowers? They are plants with flower-stems which die down to the ground yearly, but, having rootstocks, remaining alive during the winter. Therefore they come under the same category as hardy perennials. Most hardy flowers should be planted (with few exceptions) now and up to the middle of November. Such things as *Pyrethrums*, *Tritomas* and *Scabiosa caucasica* are best left over until the end of March or the beginning of April. If one wishes to be successful in growing hardy plants, the border or bed must be properly prepared. This is the first step in the right direction. There are so many different varieties and species of hardy flowers that it would be impossible in these columns to write of the requirements of all, so I write broadly of what will answer the purpose for most of them. The ground

should be thoroughly well trenched or dug two or three spades deep, so as to loosen the soil, care being taken to get the best soil at the top. During the trenching or digging well-decayed stable manure should be added, spreading it well about in the trench, as this offers a good opportunity of getting it well mixed with the soil. J. L. E.

COLOURED PLATE.

PLATE 1453

THREE GOOD GLADIOLI.

DURING recent years few flowers have undergone such vast improvements as the *Gladiolus*, and the modern forms now rightly claim a place in the very forefront of our hardy border plants. Their simple cultivation, stately bearing and beautiful colours endear them to all, and they add a touch of brightness to our gardens at this season when it is most needed. The improvements that have been effected have not been in one direction only; the entire plant has been changed, in most directions for the better. By careful hybridisation such firms as Messrs. Kelway and Son of Langport have given us plants of greater vigour, larger flowers, and such a wide range of colours as our forefathers would have thought impossible. The accompanying coloured plate has been prepared from flowers kindly supplied by Messrs. Kelway, and represents three of their newer varieties. When the tops of *Gladioli* have been blackened by frost, the plants should be lifted, with their leaves entire, and hung up in a cool, airy but frost-proof place to dry. When thoroughly dry, the tops and any other refuse may be removed and the corms stored in a cool but frost-proof place for the winter.



A NEW HYBRID FOR THE GREENHOUSE: *HÆMANTHUS ANDROMEDA*. (See page 438.)

THE GREENHOUSE.

A HYBRID HÆMANTHUS.

ON page 437 we give an illustration of the new Hæmanthus Andromeda, which received an award of merit from the Royal Horticultural Society at a recent meeting. It is a showy variety of light orange scarlet colour, and was exhibited in grand form by Mr. Cory, St. Nicholas, Cardiff. The following observations regarding the origin of this novelty have been sent to us by Mr. C. G. van Tubergen, jun., of Zwanenburg, Haarlem: "Referring to your note on Hæmanthus Andromeda, may I inform you that this hybrid has been raised in my nursery by crossing H. Katherinæ with H. magnificus, the former being the seed-bearer. A hybrid of a somewhat similar character has lately been raised in Germany by crossing H. Katherinæ with H. puniceus. The latter hybrid, which goes under the name of H. King Albert, is, however, neither so free flowering nor so large flowered as H. Andromeda, probably owing to the fact that here a special variety of H. Katherinæ was selected as the seed-bearer, and also because H. magnificus is larger flowered and altogether a better plant than H. puniceus. By crossing H. Katherinæ again with H. Andromeda I obtained a still larger-flowered hybrid than H. Andromeda. This secondary hybrid I named H. Flora."

ZONAL PELARGONIUMS FOR FLOWERING IN WINTER.

If we take the size of the plant into consideration, I daresay we should find, if a census was taken, that more Zonal Pelargoniums were grown in pots in this country than any other kind of plant. It is a plant that may be had in flower all the year round, and when the right varieties are grown their freedom of flowering is very marked. No wonder, then, that amateurs generally favour such a valuable subject for the furnishing of their greenhouses and conservatories, as the display made is a brilliant one, and especially cheering during the dull days of winter.

The Small Plant.—The value of the small specimen cannot well be over-estimated, as directly a cutting is rooted it produces a truss of blossoms, and usually the truss is an exceptionally fine one, so the cultivator has not long to wait after the insertion of the cutting for the flowers to appear.

Inserting the Cuttings.—About the end of August cultivators who wish to have some nice flowering plants in the depth of winter and in spring should insert cuttings. The latter are usually quite plentiful at this time, but after a

sunless and cool summer, such as we have experienced, the stems will be very sappy, and much care is necessary in dealing with them, else there will be loss through damping. The best compost is one of fibrous loam and leaf-soil in equal proportions, with sufficient sand to make all porous, this sand being added when the compost is first mixed. More sand must be placed on the surface of the soil in the pots just before the cuttings are put in. Some cultivators make use of the ordinary garden loam, but this turns sour, is fibreless and quite unsuitable. Manure must not be mixed with the compost, but some well-rotted manure may be placed in the bottom of each pot on the

soil firm around each cutting, give a thorough watering, and then place the pots in a warm frame or on a shelf in a greenhouse and admit plenty of air, but do not overwater. As soon as the cuttings are well rooted, repot them in 3-inch or 4½-inch pots and still retain them on warm, dry shelves. Much feeding must not be done before the first week in February, as it would induce a sappy growth at the expense of flowers.

Double-flowered Varieties.—King of Denmark, rose salmon; Improved Raspail, deep orange; Hermine, pure white; Gloire de France, salmon and white; Dagata, rosy mauve; Fascinator, orange, salmon and white; and Golden Glory, orange.

Single-flowered Varieties.

Phyllis, cerise; Lady Folkestone, blush pink; Barbara Hope, salmon pink; Mrs. Ewing, pale salmon; Mary Beton, white; The Sirdar, scarlet; and Paris, white and pink. AVON.

FLOWERS FOR GREENHOUSE BASKETS—SCHIZANTHUSES.

THESE are lovely plants for greenhouses and conservatories, and amateur cultivators who wish to have a nice display of blossom in the spring and early summer days cannot afford to be without a batch of plants. The strains now on the market are much superior to those one met with even a dozen years ago. There are hundreds of glass structures in town and suburban gardens which are only just sufficiently heated to keep out frost, and the owners often experience some difficulty in selecting plants which will survive the occasional low temperatures which must prevail. Schizanthuses are really not difficult plants to grow, and they will thrive in the average greenhouse. Seeds should be sown now either in pots or pans, and the resultant seedlings duly transplanted into the smallest pots.

In the first case it is necessary to disturb the roots of the seedlings and pot them separately. When one or two seeds are sown in a tiny pot, if more than one plant appears, all except one must be removed at a very early stage. The single specimen should be repotted, first, in a 3-inch pot, then in a 3½-inch pot, afterwards in a 5-inch pot, and finally,

in spring, in a 6½-inch or 7½-inch pot. Usually, however, the single plants are flowered in 6½-inch pots. Give the young plants cool-frame treatment until the middle of September, then place them on a very sunny shelf in a greenhouse, leaving them there until the end of February. From that date until the flowering stage a position on a front bench in a greenhouse is the best for the plants.

Loam, leaf-soil and sand should be used for raising the seedlings in; manure is not necessary nor desirable. At the first and subsequent repottings a small quantity of well-rotted manure may be added to the compost, also some old mortar rubble. The variety wisetonensis should be pinched to



A SPRAY OF CISTUS CYPRIUS, A LITTLE-KNOWN ROCK ROSE OF HYBRID ORIGIN.

drainage material. Fill the pots as follows: First put in a hollow potsherd, then several smaller pieces. On the latter place a small portion of fibrous turf or several half-decayed leaves, and then the rotted manure, filling up each pot with the mixed compost and making it moderately firm. Use 3-inch pots for the cuttings, inserting one only in each pot; then, in due course, the rooted cutting can be repotted. Select cuttings with short joints and leaves of medium size, not those with sappy stems and large, succulent leaves. Remove the lower leaf and all the prominent scales from the stems, as these if left on will decay and result in the decay of the stem itself. Make the

cause a branching habit. Two pinchings will be enough; the flowers will then be large ones. Too much stopping weakens the shoots, and the latter then bear smaller flowers. Judicious feeding is very beneficial when the plants have well filled their pots with roots after the final potting. A beginner should grow the variety *wisetonensis* first, then add other varieties, such as *S. retusus* and *S. Grahami*.

SHAMROCK.

TREES AND SHRUBS.

ROCK ROSES.

THE Gum Cistuses, or Rock Roses, are a showy family of evergreen shrubs, and so easily grown that at least one or two should find a place in the warm corner of the smallest garden. The delicate nature and attractive colour

of the flowers, in particular those with large glistening white blooms, prettily spotted with dark crimson, make a gay show during the summer. In open positions, except in mild localities, most of the species benefit by protection in winter, as, being natives of South Europe, they are only sufficiently hardy to stand mild winters. The covering provided may be Bracken, Yew or Spruce branches. The best position for the more tender Rock Roses is at the foot of a warm south or south-west wall. Light loam, well drained, is the most suitable soil, as the roots are impatient of excessive moisture in winter. Seeds, cuttings and layering form ready means of increase. Sow the seeds in spring in a cold frame or slightly-heated greenhouse, using light, very sandy soil; prick off in boxes or pans, and later pot off each plant singly. Keep the young plants in pots in the frame the first winter and plant out in spring. August is a good time to insert *Cistus* cuttings in a cold or slightly-heated frame. Layering may be done in spring or summer.

A glance at the illustration is sufficient evidence of the free-flowering qualities of *Cistus Loretii*, a hybrid between *C. ladaniferus* and *C. monspeliensis*. The plants last in this condition for some weeks, for though the individual flowers are very fleeting, others open in rapid succession. *C. Loretii* is also distinctly valuable, as the flowers remain open in the afternoon much later than those of most of the species. The flowers are white, with the familiar five dark blotches. It forms a nice shapely bush 3 feet or more in height. *C. cyprus* (see illustration on page 438), is also a hybrid, 5 feet to 6 feet or more in height, the result of crossing *C. laurifolius* and *C. ladaniferus*. This plant is, unfortunately, figured in the *Botanical Magazine*, t. 112, as *C. ladaniferus*, a species from which it is markedly distinct, the most important being that while the flowers of *C. ladaniferus* are solitary, those of *C. cyprus* are in clusters of three or more. *C. ladaniferus* is also not so hardy. Both have the white spotted flowers. *C. albidus* is one of the most familiar purple-flowered species. The name, which to some may appear strange, for

a plant with purple blossoms, refers to the leaves, which are clothed with a dense white tomentum.

The hardiest species of the genus is *C. laurifolius*, which is a vigorous grower, reaching a height of 6 feet or more. The large green leaves and pure white flowers, combined with the previously mentioned qualities, make this one of the most desirable and useful Rock Roses.

THE KITCHEN GARDEN.

TWO TROUBLESOME TOMATO DISEASES.

EVERY summer season brings to Tomato-growers at least two diseases and numerous specimens of them to the Editor. Both can, partly by cultivation, partly by spraying, be avoided to a large extent.

it is apt to be rife, for then the ideal conditions for the germination of the spores are present, yet I have met with growers who pride themselves on the fact that "we never ventilate," and their houses have not belied them. A too rich soil, encouraging rank growth, also lays the plants more open to attack. The maintenance of a fairly dry, buoyant atmosphere is a great aid to keeping the pest at bay.

Black Spot of Fruit.—The second trouble which is so common is the disease known as black spot. The fruit is attacked by a fungus called *Macrosporium solani*, and a black patch, somewhat depressed below the general level of the skin of the fruit, is produced. This patch is often at the "eye" end of the fruit, but not always only there. The spores are produced after a time, and may be carried to other fruits, on the feet of insects and in other ways. The important point is that the fungus can gain entrance, at



THE FREE-FLOWERING ROCK ROSE, *CISTUS LORETII*.

Leaf Spot.—The first is the Tomato leaf spot, due to the fungus *Cladosporium fulvum*. Large yellowish spots appear on the leaf, and the thick felt of fruiting fungus branches of a brownish colour on the under surface of the spots. The spores from these branches are scattered by the wind, spraying, picking, insects and so on, and each is able to start a new centre of infection if the conditions are suitable. They are so minute that they may be present through the winter in any crevice in the house, on any piece of refuse Tomato plant and so on, and quite without their presence being known.

The disease is known almost wherever Tomatoes are cultivated under glass, but I have never seen it in the open air. Growers who ventilate their houses whenever possible are rarely troubled to any serious extent by this disease; but where a close, somewhat moist atmosphere is maintained,

least most readily, perhaps only into the fruit through cracks in the skin, so that the grower's aim must be to keep the fruit from cracking as far as he possibly can. The disease occurs both indoors and out. Fresh manure used in the compost seems to encourage the growth and attack of this fungus, and it should be strenuously avoided. A sufficient supply of potash aids in keeping the skin from cracking, and it may be applied now and then in the form of a solution of sulphate of potash in water at the rate of about half an ounce to the gallon. An irregular water supply also conduces to cracking, as may be readily seen in Tomatoes grown outdoors. Spraying, together with the removal of diseased parts, is also an important preventive means, and the best spray to use is undoubtedly home-made Bordeaux mixture such as is used in spraying Potatoes, provided always the materials are pure.

SCIENTIST.

LETTUCE DUKE OF CORNWALL.

FREQUENTLY in the culture of vegetables or salads some few varieties stand out with greater prominence than others, and when well known become standard varieties owing to their general excellence. The above Lettuce comes under this category, as it has this year and last summer, during a period of great heat and drought, proved of great value, being of splendid quality and remarkably tender. Duke of Cornwall hails from the West of England, as its name implies, and has received an award of merit from the Royal Horticultural Society for its excellence. From seed sent by Messrs. R. Veitch, Exeter, at the trials of the National Vegetable Society the above was most noticeable for its perfect growth and crispness in a season when Lettuce was somewhat poor. There is no variety that I have grown which remains sound for a longer time when fully grown, and this is a great advantage. In addition, it is large, with a firm heart, and the outer leaves are much crested, in this way somewhat resembling Endive. Grown in good land, the plants often weigh as much as 3lb. or 4lb. and, having a flattish growth of the Drumhead type, with large, compact hearts, there is no waste, thus making it more valuable. Without doubt this is one of the best summer Lettuces we have of the Cabbage variety. W.

THE FRUIT GARDEN.

THE PACKING OF APPLES AND PEARS FOR MARKET.

THE growing of fruit for market has in the last fifteen years undergone a great development. The market-grower of thirty years ago was, with a few notable exceptions, a farmer who devoted some part of his land to fruit culture, and the fruit was grown on standards in grassland in the majority of cases. The increasing tendency towards specialisation has not left the fruit-grower untouched, and now all the leading men are devoting a large portion, if not the whole, of their land to fruit alone.



CALIFORNIAN APPLES PACKED FOR THE ENGLISH MARKET.

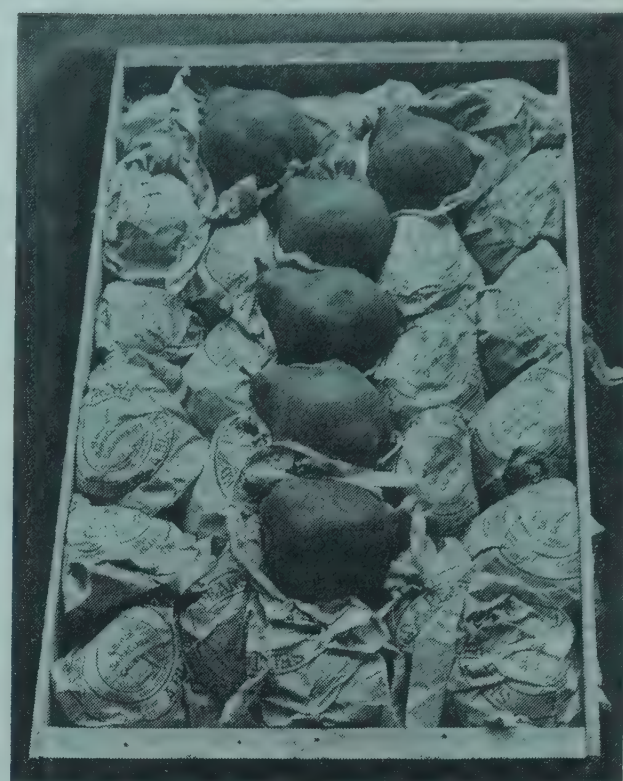
This development has had many important influences, and perhaps the greatest has been the abandonment of standard trees for bush trees or half-standards, and their culture on arable land. These modern growers were soon convinced that the most important factor for success was the selection of a variety suited to their soil and of high cropping powers, coupled with a firm flesh, which would enable the fruits to be marketed in good condition, and production of a sufficient quantity to supply the market for some considerable time. This led to a stringent selection, and the result is that in place of the dozens of sorts which formerly were marketed, most growers are now content with some half-dozen or less.

The next consideration was how to get the fruits to the consuming centres with a maximum of expedition and a minimum of damage. The bushel basket has many disadvantages which are obvious, and the alternative, the copying of the boxes of our Colonial and American competitors, was considered, and has now been adopted by very many of the larger growers. Perhaps the principal advantage of this method of packing is that it enables the producer to establish a brand, or trade-mark, thus obviating the disheartening practice which formerly lumped the good and bad together, and so lowered the price of the best to an average below its real merits. The box has, in the opinion of the writer, too many advantages to allow such small discouragements as will always fall to the lot of an innovation to check its adoption. It is evident, however, from the interesting show held at Ashford last year, when all fruit was exhibited in boxes, that some considerable practice and skill is needed for such efficient packing as we see in the case of Canadian and other foreign Apples. Various systems of laying the fruit in the boxes have been proposed, and these will vary according to the shape and size of the fruit.

The accompanying illustration of Apples shows what is called the "three two" pack, which is generally used for medium-sized fruit. The layer below will be laid on the same system, except that the "two" will come over the "three," resting in the depressions between those below. When smaller fruits are used they are often placed in equal rows, and the largest often permit but two abreast. It is most important that a standard size box should be used, and a useful size is 20 inches long by 14 inches wide and 10 inches deep.

In packing, the box is started upside down; that is, the fruits are piled in from the bottom of the box—that is, on the lid of the finished box—this being placed, of course, upside down, where it is desired that the fruit shall be the right way up when the box is opened, as in the illustration. Great judgment is necessary in filling the box, so that the fruit shall bulge slightly above the box. This is necessary so that, when the lid is nailed on, it shall act as a spring and hold the fruit firmly enough to prevent it moving, but not so firmly as to bruise. The fixing of the lid requires a clamp or press, which is a table having two metal arms, which seize the lid and, when pressure is applied to a foot-lever, press it down so that it can be nailed on. The nails must only be driven in at each end of the box, or the virtue of the "spring" of the wood lid will naturally be lost. The only other necessary appliance is a broad table, on which a good amount of fruit can be spread to enable the packer to select fruit of suitable sizes.

The packing of Pears is, from the softer nature of the fruit, a still more delicate matter, and here I would suggest that for all the more tender varieties the necessary firm packing should be



THE CALIFORNIAN METHOD OF PACKING PEARS FOR COVENT GARDEN.

gained by filling the box less full and covering with wood-wool and compressing this when the lid is affixed, so that the actual contact of wood and fruit is avoided. The use of paper on choicer dessert fruits adds much to their appearance, and gives at the same time a chance for the grower to get his name or brand noticed. An attractive label on the outside of the box is, of course, a necessity, and when a reputation is once established, this should sell the fruit without the need of opening the box. It cannot, of course, be too much emphasised that strict uniformity of sample and grade is the essence of success, and such a practice as "topping" not only damages the perpetrator, but also the whole fruit industry.

Care in gathering and storing is only one degree less important. That it will be difficult to educate packers there is little doubt; but I cannot believe that this is impossible of accomplishment with patience in this country as well as in others. The future of the fruit industry in this country depends upon improvement in distribution perhaps more than in any other direction, and that the systems of box-packing will aid in this direction cannot be open to doubt. The greatest credit must be given to the authorities at Wye College, Kent, for the impetus they have given to this matter, and those interested should write and enclose 6d. for a most interesting pamphlet, in which the various systems are described and the fullest directions given.

But why should the box method of packing stop at Apples and Pears? Plums and Cherries in America are marketed and sent for enormous distances in boxes, the latter fruit being packed in small boxes holding about a pound. Plums, if gathered early enough, would travel quite safely if well packed in boxes holding a dozen pounds or so, such as we see the Gages in which are sent from France and Spain to this country in such large numbers. I hope some enterprising grower will experiment in this direction, as the glut of Plums in Kent and Worcester, coupled with the extravagant prices asked in towns distant from these counties, make it evident that a market often exists which difficulties of distribution only hinder from being supplied.

Maidstone.

A. E. BUNYARD.

GARDENING FOR BEGINNERS.

HOW TO RAISE AND GROW HOLLYHOCKS.

ALMOST everyone is familiar with the Hollyhock, for it is suitable alike for the town and the country garden, while the border must be a very small one which cannot find a place for a group of three or four plants. The

Hollyhock is one of those good old-fashioned herbaceous subjects seldom missing from pictures of gardens of bygone days. Hollyhocks were at that time extensively propagated from cuttings, named varieties being popular. Present-day strains of seeds are so pure and reliable that seedlings are now largely depended on, for as a rule they are less susceptible to disease. The tall, stately habit of the Hollyhock is a valuable addition to any mixed flower or herbaceous border, particularly those of considerable size, while masses in shrubbery borders or single plants growing up among the shrubs add considerably to the beauty of the garden.

Both the single-flowered and double-flowered Hollyhocks may be readily raised from seeds, coming very true to colour, and, unlike the Carnation, if one sows seeds from double Hollyhocks the seedlings all come double, and seedlings from single Hollyhocks all have single flowers. Both double and single varieties are notable for their rich and varied colours. Seeds may be purchased in mixture or in the following colours separately: Double—white, cream or sulphur, yellow, flesh, pink, rose, red, crimson, orange yellow and rose pink; single—white, yellow, pink, rose, deep red and other colours.

How to Raise Seedlings.—The raising of seedling Hollyhocks presents no difficulties to the cultivator. Seeds may be sown thinly in the open ground in drills from April to June, in a cold frame or cool greenhouse in August and September, or in a heated greenhouse during January or February. Strictly speaking, the Hollyhock is a hardy perennial, the roots lasting from year to year in the ground, pushing up annual growths which flower in summer. So readily are they raised from seeds that it is quite easy to treat the Hollyhock as a biennial, or even as an annual by sowing the seeds in heat early in the year.

Treatment of Seedlings.—The April to June raised seedlings should be transplanted about nine inches apart when ready during the summer, moving them to their flowering quarters in March. Seedlings raised in frames in late summer and autumn may be pricked off in boxes when ready, keeping these in the frame during the winter, and potting off singly about February preparatory to

planting outside during April. The procedure for the January or February raised seedlings will be similar, except that when pricked off in boxes they should be kept in heat till growing freely, and they will not be ready to plant outside till May.

How to Grow the Plants.—Hollyhocks will grow in most soils, yet no plants yield better

carmine. Double—Black Knight, dark crimson; Enchantress, yellow; Flora, pink; Stephen Phillips, rich rose; White Lady; and Viscount Wolseley, rich red. Named varieties are propagated by cuttings in late summer or spring and by division of the clumps, March being a good time. Insert the cuttings in pots of light, sandy soil,

placing them in a cold or slightly-heated frame at the end of the summer or in a heated frame in March. Any difficulty experienced in keeping the named varieties during winter may be obviated by lifting the roots in late autumn and placing them in a frame for the winter.

The Hollyhock Disease.—The dreaded Hollyhock fungus (*Puccinia malvacearum*) may be kept in check by spraying with a solution of Condry's Fluid or permanganate of potash, and also with a mixture of soft soap and sulphur dissolved in water. Messrs. Webb and Brand, the well-known Hollyhock specialists, use the following mixture: Slake one peck of lime, and when cool add one peck of soot, 1 lb. of flowers of sulphur and half an ounce of sulphate of copper (finely powdered). Pass the mixture through a fine sieve and dust the plants well over with it three or four times during the growing season, preferably early in the day while the dew is still on the plants.

PRUNING THE MOCK ORANGE.

THE flowers of this plant are very lovely during the latter part of May, throughout June and the early part of July. In some gardens, however, one sees very fine bushes which do not blossom freely, and this flowerless condition is chiefly owing to the wrong way in which the pruning is done. Old specimens, left unpruned from year to year, rarely fail to bear flowers, although the latter are small. If the young wood is cut back inju-

diciously, new shoots are freely made; but they do not bear flowers. The latter are borne on the young shoots made during the previous year, and if a sufficient number of these be left, not only will they flower freely, but the blossoms will be very large and pure in colour. The result will be, year after year, wreaths of the Mock Orange blossom. Furthermore, the plants will increase in vigour and their form be improved. Some of the older wood should be cut out and, if overcrowded, a few of the younger branches, too; then the remaining ones will mature and yield a plentiful crop of blossom the following year.

SHAMROCK.



A GROUP OF HOLLYHOCKS. SEED MAY BE SOWN NOW IN COLD FRAMES.

results when planted in deeply-tilled and liberally-manured ground. A mulching of decayed manure is beneficial in May or June, and frequent waterings should be given during dry weather. By sowing seeds in April and September or early spring in heat, the season of flowering will extend from July until October. Three feet apart each way is a suitable distance to plant Hollyhocks. They grow from 8 feet to 12 feet high.

Good Named Varieties.—Would-be growers who have a fancy for named sorts are recommended the following: Single—Brooklands, white; Corona, yellow; Pom-pom, dark maroon; Rosv Morn, pale rose; Brodrick, rich red; and Penzance,

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Lawns.—The grass will not need cutting so frequently now as it did in the earlier part of the season, but once a week at least the machine should be run over to remove the straggling growths and so improve the appearance. During damp weather rolling occasionally will be of great benefit, and especially to lawns or turf that were newly laid this spring. Now that it has become thoroughly settled, the edges may be cut into proper shape with the edging-iron. This work requires to be carefully done, and, where possible, should always be carried out to a line.

Bedding Plants.—Propagation during the next week or two will be in full swing, and many are the plants nowadays brought into the scheme of summer bedding. With some of the plants the full stock must be propagated at once, whereas with others it is sufficient to root a quantity for stock purposes and propagate again from them in the spring. The latter include Iresine, Alternanthera, Mesembryanthemum, Ageratum, Cuphea and variegated Nasturtium.

Lantanas are most effective, and standard plants take a considerable time to grow, but useful bushy plants can be rooted and grown on in the New Year from cuttings obtained from a few stock plants, which should be potted up and stood in a shady and sheltered place when the bedding is over, well watered in and wintered in a cool house.

Swainsona galegifolia alba is an attractive bedding subject, the white flowers being freely produced and harmonising well over almost any dark groundwork. A stock should be propagated at once by taking cuttings and rooting them in a warm house or pit with bottom-heat.

The Rock Garden.

Coroeka cotoneaster.—When the bulk of the flowering subjects are passed it is then that a careful selection of suitable shrubs, discriminately planted, proves a great attraction. This New Zealand subject is, to all purposes, practically hardy and exceptionally well adapted for planting on rockwork, being of slow growth. The branches are curiously intermingled, which, together with the small round foliage, makes it distinctly interesting.

Muehlenbeckia varians.—This is another shrubby subject eminently suited for trailing and generally associating with rockwork. It is of quick, rampant growth and well suited for covering barren places.

The Water Garden.

General Remarks.—Now that growth on the various subjects, both aquatic and semi-aquatic, is completed, before they die down and become dormant any alterations necessary to improve the appearance for next season should be noted. For instance, the more vigorous Nymphaeas will probably need restriction, and these, unless their position is marked, are difficult to find. Note what subjects succeed best by the water's edge, and plant more extensively if needs be. One of our showiest subjects for late summer was Senecio Ledebouri, throwing up large heads of yellow flowers on stout stems above bold and handsome foliage. If the Water Lilies become badly infested with aphids, as they sometimes do, spray with a good insecticide when the flowers are closed.

Plants Under Glass.

Malmaison Carnations.—As soon as the young plants are sufficiently rooted, sever the layers from the parent plants and very carefully lift with a hand-fork for potting up. For ordinary-sized plants 3-inch pots will suffice; but where a large number of roots have been formed, use slightly larger receptacles. Pot fairly firm and stand in a shallow frame facing south, and shade if necessary for a few days.

Calceolarias.—Continue to pot off into small pots the seedlings as they become large enough. As with many other subjects, do not discard the tiny ones, as oftentimes these are the best and eventually make not only the best plants, but possess the richest markings. Use an open compost and grow quite coolly. Stand the pots on inverted ones over a good bottom of cinder-ashes, so that slugs cannot reach the plants, and damp the surroundings often and shade from sunshine.

Cyclamen.—To obtain strong plants for flowering next autumn, seed-sowing must not be delayed. Whether the seed is sown and raised in heat, or allowed to germinate more slowly on a shelf in a cool structure, is a matter of opinion. Sow the seeds thinly in spare pans or boxes, so that there is no need to disturb them immediately they are germinated. Avoid an over-depth of soil and use plenty of drainage; then the compost will remain for some time in a sweet condition. Keep the plants due to flower this winter growing by the use of occasional stimulants and the free use of the syringe in warm weather, especially keeping them shaded from bright sun and their surroundings moist. As the flower-buds show colour above the foliage, remove them by pulling them clean out from the base.

The Hardy Fruit Garden.

The Fruit-Room.—Whatever this may be, the interior should be thoroughly cleaned out without delay and got in readiness for storing the fruit.

Gathering of Fruit.—This requires carefully attending to, and especially with Apples that are to be kept for some months. With the earlier-maturing varieties that refuse to keep satisfactorily it is not so important. When to gather is another question frequently asked, and this also has a great bearing on their keeping properties. With late keepers allow the fruits to hang as long as possible, unless, of course, they drop badly, when picking should be carried out, and even then many will be found to part badly from the trees; but do not be tempted by the first few to fall. Handle carefully and do not place too many in bulk. If possible, finally store in a single layer and on a base where the air can permeate through, and label the varieties accordingly.

Pears require especially careful handling, and should certainly not be placed any thicker than one layer, so that as they ripen they may be selected for consumption. Frequently examine these, otherwise many will over-ripen.

The Kitchen Garden.

Spring Cabbage.—The earliest plants of the first sowing should be planted out as soon as ready. It is a good crop to follow the Onions. Well dig the ground, working in any farmyard manure. Make firm and plant in rows 18 inches apart and 1 foot between the plants, so that in early spring the alternate ones can be removed for filling gaps, which often occur after a wet winter.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Lobelia for Stock.—Plants that have been doing duty in the greenhouse, as well as surplus ones in pots, must not be permitted to flower any longer, else they may damp off during winter. If there is none in pots, then delay no longer in taking rooted slips off old plants; but as a rule these cannot be depended on to winter safely.

Roses.—The first crop of flowers passed off very quickly, but now the beds are again well furnished, and there is a great display of the late-blooming climbers. Mildew has been apparent owing to the very wet weather, especially where the beds are confined. Any weak or decaying wood should be cut clean out if it has not been done already. It helps Aimée Vibert considerably to shorten the bloomed-out shoots, the late crop of blooms soon covering the plants again.

Making Up Blanks.—Chrysanthemums and China Asters will be found of much value now and later to fill up blanks made by earlier-flowering plants. These and many other plants transplant successfully with very little care. I invariably find that men attempt to lift too much material with each plant, which causes the ball of soil to split. No more soil than will attach itself to the plant should therefore be lifted. The ground should be well stirred previous to planting, the plants set deep into the ground, and the soil immediately saturated with water and kept saturated for a few days till new roots have protruded. African Marigolds should not be lifted till they are in flower, when the singles can be kept from the doubles, each being massed by itself.

Lilium candidum.—This is the time most suitable to lift and replant this Lily. It is a very

accommodating plant, which I have lifted in full growth without its exhibiting any signs of resentment. Like the Hollyhock, the disease is less obvious in some parts of the garden than in others. In a shaded part I have never seen the disease, and the flowers there succeed the earlier-flowering ones which are exposed.

Violets.—Plants which are yellow in the foliage will soon recover on being surface-dressed with a stimulating manure, pigeon-manure, soot, superphosphate, or a good proprietary composition being suitable for the purpose. Doubles, as a rule, do not show these symptoms of distress, but they also should be manured.

Indoor Fruits.

Strawberries.—It is full time for the potting of these. A strong yellow loam with a sixth part of desiccated cow-manure reduced to powdery fineness suits them best. A difficulty with the inexperienced in potting is that the plants are either put too low or too high in the pots, just level with the string of the runner being right. Hard potting is essential. After a few days, especially if the weather is hot, frequent waterings will be necessary.

Black Grapes.—To colour these properly they must have time; consequently a high temperature, especially at night, should not be attempted. Water at the root in sufficient quantity is another essential, and that slightly manurial is to be preferred to the pure liquid. It is not necessary to have much ventilation, generally a little—a few inches at most of the top ventilator open—being enough to ensure the health of the Vines. Black Hamburgh, as a rule, will be ripened, and to keep the colour a shading may be sprayed over the glass and the inside of the vinery kept cool and dry. Dry straw spread neatly over the borders is a means to this end and saves the borders from drying, and in this way is a help to proper conditions.

Pot Peaches.—As the crop is gathered off each tree it may be taken out of doors, not crushing the trees together, but giving them plenty of room. Nor must they be neglected in the way of manure-water, the flower-buds for another year depending on the manner in which the trees are treated in the autumn. Rub off all superfluous growths and keep the foliage clean by regular washings with pure water.

Indoor Plants.

Pelargoniums.—Plants for autumn blooming should be transferred to a well-ventilated and light structure, in which the flowers will open in greater purity than out of doors. Slight applications of sulphate of ammonia and superphosphate give an added brilliance to the colours; but the plants, it must be remembered, are easily damaged if over-manured.

Calceolaria Burbidgei.—If plants of this Calceolaria are too pot-bound to flower sufficiently, they ought to be shifted into larger pots at once. Manurial feeding, which can be resorted to with many other plants, has little effect on this if the rooting space is contracted. As soon as the shoots begin to extend for bloom they must be staked efficiently.

Tuberose.—Those potted late and which have been growing in a cool structure will soon begin to flower, and it will be necessary shortly to give them a higher temperature in order that the flowers may expand nicely. The plants will also need much more water at the root and a very short stick to each spike. It is often annoying to find a finished spike tied all its length, and needlessly, to a long stake.

Annuals.—Another sowing of Schizanthus may be made soon in 3-inch pots, as advised for the first batch; also of varieties of Clarkia elegans to flower in late spring. Mignonette should also be sown without further delay. This does well sown in 6-inch pots, thinning out the seedlings to the right number. A light, very rich compost suits them well, and they must never be allowed to suffer a check to growth.

Smilax.—Late-started material for Christmas and spring should be stringed before the growths get entangled. Linen thread is the best material to use, being strong for its thickness, and it does not readily break when drawing it from the cut sprays. Aphids occasionally attacks the plants, which may be syringed with a Quassia solution or else fumed.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

DAFFODIL NOTES.

SOME MODERATE-PRICED DAFFODILS FOR SHOWING.

(Continued from page 431.)

Division III.a, Small Cups with Yellow Perianths.—It is surprising how comparatively few good flowers there are in this section with yellow perianths, when we consider the very large number of those with white. I think the word "whitish" in the Royal Horticultural Society's definition is partly responsible. "Whitish perianth" is there taken to cover such a flower as Firebrand, and this cuts out so many from the yellows that there are but an insignificant number left. In one catalogue in which I counted up the number of varieties listed under III. (Small Cups), I found seventy-two, and of these only thirteen were marked "a," that is, as having a yellow perianth. The famous old Barrii conspicuus is the best known by far, and even now is often seen at shows, not because there is nothing else, but because it can still hold its own. Castile and Occident are indispensable. The former has a very distinct and pleasing shade of a sort of coffee red in the cup, with good, smooth-pointed, pale yellow segments; whereas the latter is a rounder flower with a great deal of red in the crown. Unfortunately, as it is very late to flower, it is uncertain whether Northern growers will have it in bloom by the time it is wanted. Stonechat, Blood Orange, Fusilier, Yellow Poet, Glitter, Joan of Arc and Concord are other names that come to me as I write. The last is a very perfect show flower, and should be in every collection. The flat yellow crown with its narrow deep red edge is telling. Some day Furnace and Jasper will come under the description of moderate-priced flowers. They have the reddest cups of all Daffodils, and on this account are highly prized and priced. At least, ten guineas and fifteen guineas is getting on that way.

Division III.b, Small Cups with White Perianths.—I was going to say it is difficult to get a flower that is not in "III.b." It would be a pardonable exaggeration. Corresponding to this wealth of choice we find quite low-priced varieties will enable anyone to put up a collection of a high standard of excellence. Take these twelve: Circlet, Incognita, Ethelbert, Cresset, Armored, Branstons, Southern Star, Sunrise, Red Chief, Fair Maiden, Egret and Eyebright. Sunrise is priced about half-a-guinea, but I think none of the others is over six shillings. They are a magnificent lot, and, if they are well grown and tastefully staged, would not have to hide their heads and think they were Cinderellas even beside such proud beauties as White Star, Cossack and Challenger. In the baker's dozen just mentioned we have four famous varieties: Incognita, with its eye of pale warm brick red and long white almond-shaped segments, comes near to the charmed circle of "great flowers." If everywhere was Lissadell, I think if it knocked for admission it would be admitted; but, alas! I cannot grow it to get such colour as they do over against the Atlantic; neither, I fear, can one reader in fifty. Ethelbert, which so charmed this year's chairman of the National Sweet Pea Society's committee, is an exquisite bloom, and the gentle up-and-down of its perianth is always greatly admired. We want more of this Almira-looking type. They are a welcome change from the perfectly flat petalled ones. Sunrise has a shallow orange yellow cup, with conspicuous rays of yellow running up each petal. It is highly effective on a stand and most distinct. Southern Star is after the

style of the old Crown Prince. It has a well-defined band of red round the edge of the cup, and long, rather pointed perianth segments. As Cossack now comes within my definition of moderate priced, I must call especial attention to it. It is superb for showing and quite the equal of more highly-priced all-red flat cups, and as I have grown it for three years I can testify to its being a good doer. A cheaper variety, with an all-red centre, may be had in Scarlet Eye. It is a very bright and pleasing flower, not so round as Cossack, nor has it such a deep-toned eye. With the mention of Red Beacon, which I remember so well at the great Haarlem Bicentennial, my list must close. It has a similar cup to the last two, and in quality and price comes about halfway between them.

Division IV., Leedsii Daffodils.—Although I see the appropriateness of such an omnibus section, I believe there is a sort of secret danger ahead if schedule-makers and judges do not recognise its *comprehensive* character. As the incomparabilis and Barrii divisions have their white and yellow perianths to enable them to be split up, so I think the Leedsii might be divided into star-shaped and round. Nothing about any dividing up is said in the Royal Horticultural Society's definition; but that could easily be got over by a note in the requirements for this class to say that the judges will take into consideration in giving their awards the diversity of form among the blooms staged. Much as I love those beautiful white flowers like White Queen, Mrs. W. O. Walseley, Venus and Empire, I would not like to see things like Countess of Southesk, White Slave, Ariadne and Bianca pushed on one side. They are so charming that it would be a Leedsii disaster indeed were they to be allowed to drop out of our shows. At present they *have to come in* simply because a dozen of such varieties as Empire, Hon. Mrs. Francklin, Elfrida Pearson, Mrs. W. O. Walseley, Lord Kitchener, Czarina, Patrician, H. C. Bowles, Swashbuckler, Sirdar, White King and Lowdham Beauty are out of the question to all but millionaires. To show three flowers of each of a twelve like these would mean an outlay of something like £250 to £300. After all this, let me now select my dozen moderates. I know before I start the task will be difficult, not because I cannot find enough beautiful varieties to fill my requirements, but because I must leave out others almost equally lovely to my eyes, and perhaps more so to others. Here, then, is my selection: Moonbeam, White Queen, Countess of Southesk, Venus, Ariadne, Eoster, Bianca, Hoar Frost, Evangeline, Penguin, Queen of the North and Thora. If I omitted the perfect Moonbeam on account of its lateness, my choice would lie between Diana and Lucia. Most of these are known to my readers. Hoar Frost lives at Lismore, "a lovely flower when fully expanded; perianth and cup of pure white, the latter beautifully margined with a fine line of pink." Countess of Southesk—my Leedsii Frank Miles at Cork; Queen of the North shone forth once at least this spring from Messrs. Barr's usual stand just inside the door on the left-hand side of the Royal Horticultural Society's Hall; Thora, the lovely brunette, has been enticed to Bletchley. So now you know where the *variores aves* of my "little crowd" are to be found.

Division V., Triandrus Hybrids.—In my humble opinion the prices asked are absurd. One consolation is they will probably soon get lower, for calathinus is a very potent pollen parent, and there is no reason why everyone should not raise his own. Most Daffodils will seed to calathinus. The loveliest are the pure white teacup-shaped ones which come

from such a cross as Minnie Hume and calathinus. To show what I mean about prices, I find in one list seventeen varieties. Of these only four are under a pound. Richard Strauss, Queen of Spain, Dorothy Kingsmill, Bennett-Poë and White Witch seem the only possible ones for shallow pockets.

Divisions VI. and VII., Cyclamineus and Jonquil Hybrids.—Cyclamineus hybrids may be omitted; so, too, may Jonquil hybrids, although I feel sure in time we will have this section much better filled up. Buttercup is the pioneer of this new race of rich deep Guernsey butter yellow selfs. It is a very beautiful flower, and is bound to be a great popular favourite in the course of time.

Division VIII., Tazetta and Tazetta Hybrids.—From a show point the best are Elvira, Jaune à Merveille, Orient, Irene and Sunset. If a sixth is wanted, I would suggest Triumph or Aspasia. Jaune à Merveille has about five or six flowers of a pretty shade of soft yellow, with an orange yellow cup, often shaded with apricot. Orient has a pure white undulating perianth of much substance, with a pale yellow eye, with a very distinct thin red edge. Of the Polyanthus Narcissi, the best are Bazelman major, Mont Cenis, Maestro and Newton, but for practical show purposes they may all be neglected.

JOSEPH JACOB.

(To be continued.)

FUNERAL OF THE LATE
ALEXANDER DEAN, V.M.H.

AMID many tokens of deep respect, the remains of the late Alexander Dean, whose death we announced in our last issue, were laid to rest in Kingston-on-Thames Cemetery on Monday last. Although the afternoon was exceedingly wet, there were a large number of the deceased's relatives and friends present. The Committal Service, which had been prepared by the deceased, was read by Mr. Philip Thomas of the Church of Humanity, Holborn, a sect of which Mr. Dean was a prominent member. In addition to his relatives, the following were among those present at the graveside:

Messrs. J. Cheal, representing the Royal Horticultural Society; the Mayor and ex-Mayor of Kingston; Messrs. Owen Thomas, V.M.H., W. Poupert, Brian Wynne, Horace J. Wright, F. W. Harvey, Editor of THE GARDEN; W. Tinley of the *Gardeners' Chronicle*, J. Nayler of *Gardening Illustrated*, E. H. Jenkins, W. Bates, E. G. Quick, hon. secretary of the National Vegetable Society; W. J. James, W. Hayward, W. G. Smith (Kingston), A. E. Burgess, Horticultural Instructor to the Surrey County Council; John Crook and T. Gibbons, Esher Court Gardens. Many members of the Kingston branch of the Humanitarian Society, which was founded by the deceased, were also present. The floral tributes were exceedingly beautiful and numerous, and included, in addition to those from his widow and other relatives, tributes from the members of the National Vegetable Society, of whose committee the deceased was chairman; the Kingston Liberal Association, Kingston Adult Schools, Kingston tradesmen, the Kingston Saturday Popular Entertainments Committee, Mr. G. C. Parnaby, J.P., Mr. E. H. Jenkins, the Editor of THE GARDEN, the *Surrey Comet*, Mr. and Mrs. Ryan, Mr. and Mrs. Hayward, and Mr. and Mrs. J. J. Shakespere.

SOCIETIES.

SHREWSBURY SHOW.

FAVoured with good weather on the opening day, the great Shrewsbury Show was held on August 21 and 22. It was a magnificent exhibition; indeed, by a general consensus of opinion it was one of the finest in the annals of the history of the Shropshire Horticultural Society. The magnitude and all-round excellence of the produce shown place this far-famed exhibition in the premier position among provincial shows. The show was again held in the beautiful grounds known as the Quarry. Competition generally was very keen. As usual, Grapes proved to be one of the strongest features, and the best growers in the country were brought into competition. The champion prize for the decorated fruit-table was won by the Duke of Portland, whose gardener, Mr. Gibson, succeeded in defeating the redoubtable Mr. Goodacre by a very narrow margin. Roses were far better than might have been expected, and the Silver Challenge Rose Bowl, presented by the president of the society, W. W. G. Philipps, Esq., brought out one of the finest competitions that have ever been witnessed.

FRUIT.

The keenest interest is always centred around the class for decorated fruit-tables. This is one of the features of this great show. There were only three entries on this occasion, but the tables were of the very highest order. The class is for thirty dishes, and the first three prizes are £25, £20 and £17 10s. Grapes, Apples, Melons, Peaches, Nectarines, Pears and Plums were to be seen in the height of perfection on the three tables in competition. There was very little between the merits of the first two competitors. The first prize was won by the Duke of Portland, K.G., Welbeck (gardener, Mr. Gibson), who scored a fine total of 253½ points. With only one point between them, the second prize went to the Earl of Harrington,

shown, all of which had been grown at the Wisley Gardens, Surrey. Large gold medal.

Messrs. Thomas Rivers and Son, Sawbridgeworth, quite excelled themselves with an excellent collection of pot fruit trees. The collection included many Nectarines and Peaches, Plums, Apples, Pears, Grapes, Oranges and Figs. The arrangement was perfect and the quality of the very highest. Large gold medal.

The King's Acre Nurseries, Limited, Hereford, staged an excellent collection of pot fruit trees, including Apples, Pears, Plums, Figs and Grapes. For quality of fruit this collection was deserving of the very highest praise. The following Apples were remarkably good: Cellini, Cox's Pomona, Peasgood's Nonsuch, Allington Pippin and Emperor Alexander. Large gold medal.

The attractive fruits of the Strawberry-Raspberry were displayed by Mr. B. Bowdler, Shrewsbury.

The first prize for a collection of twelve dishes, in not less than nine kinds, was won by the Duke of Newcastle, Worksop (gardener, Mr. S. Barker). This collection contained fine fruits of Apple Ribston Pippin and Pear Triomphe de Vienne; second, Lord Biddulph, Ledbury Park (gardener, Mr. H. Cotton); third, Alderman Bewley, Rathgar (gardener, Mr. D. M. McIntosh).

VEGETABLES.

As in former seasons, this section was again quite a leading feature, the entries being even heavier than usual. The quality throughout was excellent. The whole of the seedmen's classes were well contested and brought excellent competition.

In Class 112, open to all, for a collection of twelve distinct kinds, which brought seven competitors, the Hon. Vicary Gibbs, Aldenham House, Elstree, was an easy first with a splendid collection, including Celery, Leeks, Onions, &c. Mr. J. Hudson of Leicester came second with a meritorious collection.

For a collection of nine kinds, distinct, Class 113, there were five competitors. The judges had a great difficulty in awarding the prizes, the collections in each case being

Melpomene and *L. longiflorum grandiflorum*, also Carnations in variety, with a superb collection of Peas, Melons and Tomatoes in the foreground. Gold medal.

The society's large gold medal was awarded to Messrs. Clibrans for a magnificent display of flowers, fruit and vegetables of the highest excellence.

HARDY PLANTS.

Herbaceous plants were well represented, although in some instances the flowers were unmistakably weather-beaten. Phloxes were not quite so good as we have seen them on previous occasions, but late-flowering Gladioli, Pentstemons and Gaillardias were all three worthy of special mention. With the exception of new Montbretias, there was a decided lack of outstanding novelties among herbaceous plants. There was splendid competition in Class 5 for a group of hardy and perennial plants with a background of Bamboos, &c., with a pool of water, Nymphaeas and other water plants. The premier place in this class fell to the lot of Messrs. Gunn and Sons, Olton, with a most beautiful show of hardy flowers, such as Hollyhocks, Phloxes, Spiraeas and Liliums. In the foreground was a little water garden containing many flowers of Nymphaeas in a variety of colours. Second, Mr. J. E. Knight, Wolverhampton; third, Mr. T. R. Hayes, Keswick; fourth, Messrs. W. Artindale and Son, Sheffield. Mr. T. R. Hayes was first for a collection of rock and alpine plants with a very effective exhibit, occupying 100 square feet, arranged upon the ground. Mr. R. Hayes, Grasmere, and Messrs. W. Artindale and Son were the runners-up in this interesting class.

A raised water garden, surrounded by Delphiniums, Liliums and a host of water-side plants, was erected by Mr. Amos Perry, Enfield, Middlesex. The arrangement left nothing to be desired, the colour combination and grouping being most pleasing. A large gold medal was awarded for this admirable group.

A gold medal was awarded to Messrs. Gunn and Sons, Olton, who put up an extensive group of Phloxes, including all the varieties that are worth growing.

Baker's, Wolverhampton, staged a most effective group of alpine and herbaceous flowers, for which a gold medal was awarded. Phloxes, Delphiniums, Senecio clivorum, Dahlias and early-flowering Chrysanthemums were alike equally well shown.

Messrs. Dicksons, Royal Nurseries, Chester, were represented by a grand collection of herbaceous plants, in which Gladioli and the lovely Californian Tree Poppy (*Romneya Coulteri*) figured prominently. A silver-gilt medal was awarded for this exhibit.

A similar award was made for Pentstemons, Phloxes and Antirrhinums shown by Mr. Forbes of Hawick, which aroused the admiration of all visitors. The little-known hardy plant, *Eucomis punctata*, was included in this group.

Messrs. Isaac House and Son, Westbury-on-Trym, Bristol, had an interesting collection of hardy alpines, in which Campanulas were most conspicuous. The same firm had a well-arranged group of herbaceous flowers. Phloxes were a feature in this group, for which the high award of a gold medal was given.

A wonderful display of Montbretias, including the latest creation, *Star of the East* (illustrated on page 437), was shown by Messrs. Wallace and Co., Colchester. A silver-gilt medal was awarded.

A gold medal was awarded to Messrs. Jarman and Co., Chard, for a comprehensive group comprising Pelargoniums, Roses, Dahlias and their speciality, the new Centaureas.

Mr. A. W. Thorpe, Lichfield, had a grand collection of early-flowering Chrysanthemums, for which a silver-gilt medal was deservedly given.

A similar award was made to Messrs. Pritchard and Sons, Shrewsbury, who staged alpines, chiefly Campanulas, in pots and ornamental bowls, and Ferns.

Messrs. Harkness and Sons, Bedale, Yorks, sent a wonderful collection of Gaillardias in warm orange tones of colour. The variety Mrs. Mackellar is remarkable for its very large flowers.

Messrs. G. Gibson and Co., Leeming Bar, Bedale, Yorks, had a capital bank of herbaceous flowers and Roses. The magnificent scarlet *Lobelia Gloire de St. Annes* was shown in this group.

Messrs. Caldwell and Sons, Knutsford, showed Phloxes and the general run of herbaceous plants in good form, but somewhat overcrowded.

Mr. Robert Hayes, Grasmere, showed a nice lot of Phloxes from Wordsworth's country, the heart of English Lakeland.

An admirable exhibit of late-flowering Gladioli was shown by Messrs. Hogg and Robertson, Dublin.

Hollyhocks in tall, handsome spikes of varying hues were shown by Messrs. Webb and Brand, Saffron Walden, Essex.

Mr. R. Pritchard, Wimborne, had an interesting lot of alpines, among which we observed *Antirrhinum glutinosum* and the charming Bluebell Flower, *Wahlenbergia gentianoides*.

Messrs. Conways, Limited, Halifax, showed a representative collection of herbaceous flowers interspersed with pillars of Roses.

Mr. J. H. Marsden, Malvern Link, showed early-flowering Chrysanthemums and herbaceous plants.

Messrs. F. Smith and Co., Woodbridge, staged herbaceous plants in great profusion.



THE FIRST PRIZE TABLE OF FRUIT SHOWN BY THE DUKE OF PORTLAND AT SHREWSBURY.

Elvaston Castle (gardener, Mr. J. H. Goodacre), who had 252½ points to his credit. The third place was gained by Lady Henry Somerset, Eastnor Castle, with 235½ points.

For twelve bunches of Grapes there was strong competition, and the first prize of £20 was won by the Duke of Westminster, Eaton Hall (gardener, Mr. Barnes); the second prize was won by the Earl of Harrington. The finish of the Muscat Grapes in the first-prize collection was quite exceptional.

For four bunches of Grapes, two bunches of a black variety and two of a white variety, Mr. R. J. Corbett, Towyn (gardener, Mr. J. Jones), was first with two capital bunches of Gros Maroc and two equally good bunches of Muscat of Alexandria. Second, Captain Heywood Lonsdale, Shavington (gardener, Mr. J. Mills).

Mr. J. Brinton, Stourport (gardener, Mr. W. H. Wilson), was first for two bunches of Black Hamburgh Grapes.

For eight Peaches, the Duke of Newcastle, Worksop (gardener, Mr. S. Barker), was first with a superb dish of Crispin Gálante.

For a single bunch of Black Hamburgh, Lady Henry Somerset, Eastnor Castle (gardener, Mr. G. Mullins), was a good first.

For two bunches of black Muscat varieties, G. E. Lomax, Esq., Hayton (gardener, Mr. E. Jones), was first with two capital bunches of Madresfield Court.

For two bunches of Madresfield Court Grapes, Colonel H. C. Legh, Knutsford (gardener, Mr. A. J. Cooke), was first with a pair of handsome bunches.

Some excellent Alicante Grapes were seen in the class for two bunches. First, Mr. J. W. Raynes, Old Colwyn (gardener, Mr. J. Barker).

In the class for two bunches of any Grape not given in the schedule, Lord Harlech, Brogyntryn (gardener, Mr. T. Lambert), was first with two heavy bunches of Alnwick Seedling.

Grapes are always a strong feature at Shrewsbury, and not the least interesting exhibit was that of a collection of known and little-known varieties from the Royal Horticultural Society. About two dozen varieties were

very close. F. Bibby, Esq., Hardwicke Grange, secured the first prize, and Captain H. Lonsdale, Shavington Hall, second.

Class 114, which was for six dishes of Potatoes, brought very good and keen competition, there being twelve competitors in this class. Colonel Cornwallis-West secured the first prize with a fine collection, including such varieties as King Edward, Goldfinger, Sensation, &c., with Lord North of Banbury a good second.

The whole of the single dish classes were well filled with some splendid examples. Unfortunately, owing to lack of space, we are unable to enumerate the winners.

Messrs. Barr and Sons, King Street, Covent Garden, displayed a magnificent collection of vegetables, comprising some eighty dishes, prominent among them being Brazilian Beet, Capsicums, Red Cabbage, Celery (pink and white), Barr's White Champion being exceptionally fine; Potatoes in many varieties, Onions, Turnip Golden Nugget, Beans, Peas, &c. The whole were exceptionally well staged. Silver-gilt medal.

The Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett), also staged a beautiful collection, most artistically arranged, all, as usual, up to the high standard of perfection. It comprised about ninety dishes, including Lettuce, Butter Beans, Kohl Rabi, Radishes, New Zealand Spinach, Globe Artichokes and many other varieties. Large gold medal.

Messrs. Sutton and Sons quite excelled themselves in their highly-attractive and well-arranged exhibit of vegetables, intermingled with bright colours of Asters, Antirrhinums, Begonias and various annuals. A capital selection of Melons was dispersed throughout the collection. Large gold medal.

Messrs. Webb, Wordsley, Stourbridge, had an exquisite collection of flowers, vegetables and Melons. The Onions, Carrots and Tomatoes were in the best of condition, and arches of Carnations and Sweet Peas gave a suitable setting to this admirable collection. Large gold medal.

Messrs. Dickson and Robinson, Manchester, staged a most glorious display of Liliums, viz., *L. auratum*, *L.*

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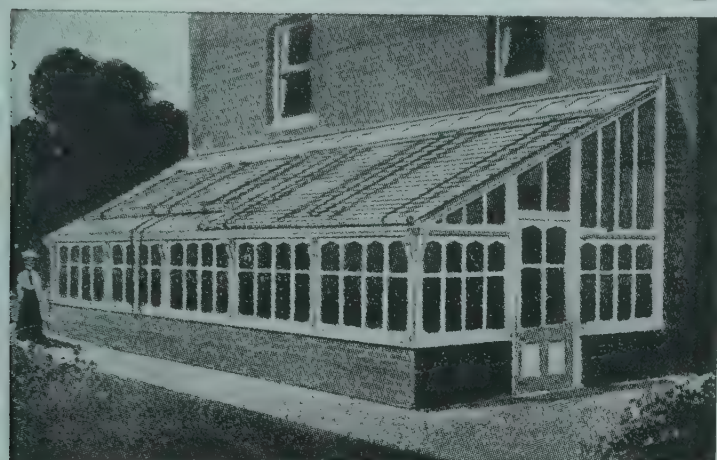
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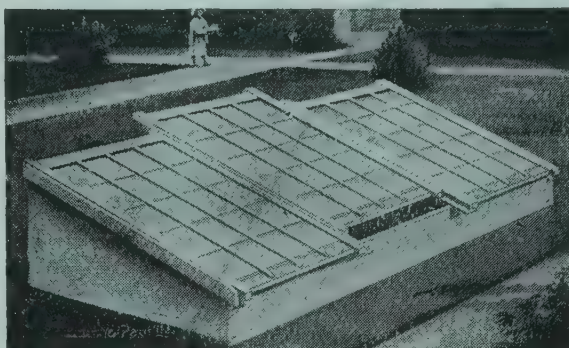
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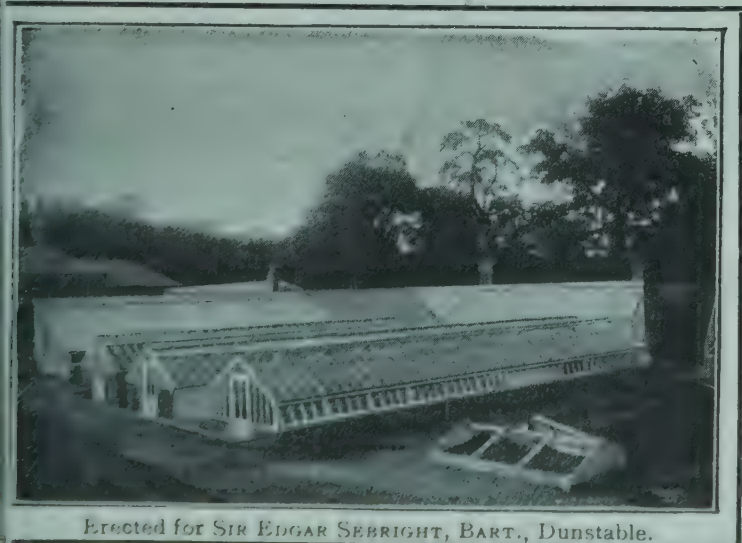
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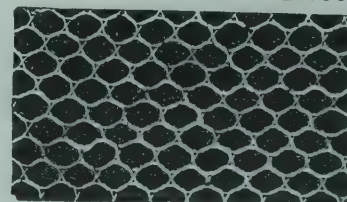
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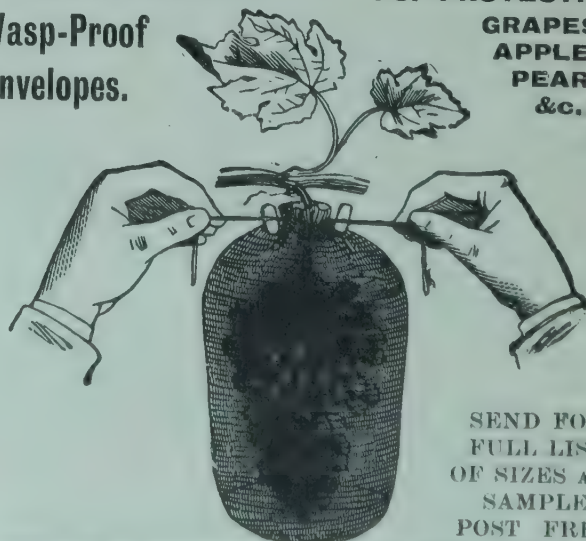
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Messrs. Hewitt and Co., Birmingham, had a fine and extensive group of herbaceous plants. *Sparaxis pendula* was well shown in this group.

Messrs. Rich and Co., Bath, showed herbaceous plants and many tall spikes of *Gladioli*.

DAHLIAS.

Dahlias were as strong as, if not more so than, ever, and in the non-competitive groups the new Collarette section was very much in evidence. Mr. W. Vickers was the winner of the class for six Cactus Dahlias with a nice even lot of good size and colour.

Messrs. Dobbie and Co., Edinburgh, put up a unique exhibit of the new Collarette Dahlias in every conceivable shade of colour. This new race has certainly come to stay, and the exhibit in question created a deal of interest. A gold medal was awarded to this firm for Dahlias and other flowers.

A similar award was made to Messrs. Hobbies, Limited, who had a representative collection of Pæony-flowered and Collarette Dahlias, with tip-top blooms of Cactus-flowered varieties in the foreground. Roses in almost equally good form were likewise shown.

STOVE AND GREENHOUSE PLANTS.

The large groups of stove and greenhouse plants were quite up to the high standard of excellence of previous shows. There was splendid competition for the premier place in the large class (Class 4) for a group of miscellaneous and fine-foliaged plants arranged for effect, and occupying a space of 250 square feet. The much-coveted prize went to Messrs. J. Cypher and Sons, Cheltenham, who had a superb arrangement of *Odontoglossums*, *Cattleyas*, *Liliums* and *Oncidiums* interspersed with *Crotons*, *Anthuriums* and other foliage plants. Sir G. H. Kenrick and Mr. Vause were second and third respectively.

The huge specimen stove plants of *Ixoras*, *Stephanotis*, *Chironia ixifera*, *Clerodendron fallax*, *Crotons* and *Statice* were, as usual, one of the features of this show. Messrs. Cypher and Sons gained many first prizes. Their plants of *Stephanotis*, *Allamandas*, *Rondeletias* and *Bougainvilleas* were *par excellence*.

Mr. Vause of Leamington and Mr. W. R. Manning of Dudley were well to the fore with stove and greenhouse plants.

For twelve stove or greenhouse plants in pots not exceeding 10 inches, Lord Harlech was first, followed by Mr. J. Farrant and Mr. G. Burr, the last two being local exhibitors.

For a group of tuberous *Begonias*, Messrs. Blackmore and Langdon, Twerton-on-Avon, Bath, were first. The varieties *Pink Pearl*, *Royal George* and *Mrs. Peter Clowes* were especially good in a wonderfully fine lot. Messrs. Ware, Feltham, were second with a very choice collection, in which *Lady Cromer* was especially good.

Messrs. Jones and Sons, Shrewsbury, showed a comprehensive group of florists' flowers and a beautiful collection of the *Nephrolepis Fern*, for which they received the society's gold medal.

Mr. L. R. Russell, Richmond, showed a wonderful collection of *Celosias* in crimson, yellow and mixed shades of colour. This exhibit evoked the keenest interest from visitors. Silver-gilt medal.

Very charming indeed was the *Lotus*, or *Nelumbium speciosum*, shown by Mr. R. F. Felton, Hanover Square, London. The flowers and foliage were in a perfectly fresh condition, and looked none the worse for their long journey of five or six days, the flowers having been imported from the East.

Mr. H. N. Ellison, West Bromwich, staged an admirable group of Ferns of even better quality than usual. A collection of curious-looking *Cacti* from the same source aroused much interest. The latter included novelties grown by F. A. Haage, jun., Erfurt, Germany. Silver-gilt medal.

A veritable blaze of colour was created by a fine bank of *Pelargoniums* shown by Mr. Albert Myers, Shrewsbury. An interesting and varied collection of *Cacti* was exhibited by Miss S. S. Thompson, Alfred Road, Handsworth.

Mr. W. A. Manda of the United States sent from his European branch, St. Albans, Herts, a few handsome plants of *Polypodium madaianum* and other Ferns.

Messrs. H. B. May and Sons showed a fine lot of Ferns, including many varieties of *Nephrolepis*. Gold medal.

ROSES.

Roses of unexampled beauty and fragrance were to be seen, but, unfortunately, they were housed in a tent a little off the beaten track. All interest was centred on the Silver Challenge Rose Bowl, valued at £45, presented by W. W. G. Philipps, Esq., president of the society. The prize was for a collection of cut Roses, artistically arranged, occupying a space of 20 feet by 4 feet. There was splendid competition, in which many of our best Rose firms were brought into friendly combat. Messrs. Gunn and Sons, Olton, were first with one of the finest displays we have ever seen. The second prize went to Mr. J. Mattock, Oxford; third, Messrs. W. and J. Brown, Grantham; fourth, Messrs. Hugh Dickson, Limited, Belfast. The Lyon Rose was well shown by all exhibitors, and Irish Elegance was another variety well represented. The winner of the trophy also received the society's large gold medal, while the winners of the second, third and fourth prizes received a gold medal, silver-gilt medal and silver medal respectively.

For eighteen cut Roses, single blooms, that well-known exhibitor, Mr. G. Speight, Market Harborough, was first; second, Mr. A. W. Meakin, Tillington, Stafford; third, Mrs. Jenner, Wenvoe Castle, Cardiff.

For twelve vases of decorative Roses, Messrs. A. Dickson and Sons, Limited, were first, followed by Mr. J. Mattock and Mr. R. Hayes, Grasmere.

Messrs. A. Dickson and Sons, Limited, Hawmark, Newtownards, had a very choice selection of good varieties. The new, deep plum-coloured Rose *George Dickson* was prominent. Roses in boxes from the same exhibitors were of the highest quality, in spite of the season. A gold medal was awarded for these choice Roses.

The King's Acre Nurseries, Limited, Hereford, showed such charming varieties as *Mrs. A. Waddell*, *Harry Kirk*, *Irish Elegance*, *Lady Hillingdon* and *Mme. M. Souper*.

Herbaceous plants, chiefly *Phloxes*, were also shown by this firm.

Mr. Edwin Murrell, Shrewsbury, staged a most creditable collection of *Roses*, including such gems as *Rayon d'Or*, *Edu Meyer* and *Arthur R. Goodwin*. The flowers were perfectly fresh, and showed little signs of the recent heavy rains. *Clematises* and hardy shrubs were likewise shown in good condition. Silver-gilt medal.

CARNATIONS.

Both in the non-competitive and competitive exhibits there were many flowers staged of great merit. Taking the former first, by far the most important group was the gold medal one of Messrs. Young and Co. of Cheltenham, who had a very representative collection of old and new varieties. The Hon. Lady Neeld is a magnificent hybrid between a *Malmaison* and a *Perpetual*. It is of the "Painted Lady" type, and resembles *Mrs. Raphael*, but is a more continuous bloomer. *Duchess of Devonshire* is a plain-edged deep crimson, a strong grower, and very sweet; *Queen* is a pretty primrose-ground fancy with light pink markings; *Lady Henderson* is a beautiful shade of salmon pink, with stiff, wiry stems and large, well-built flowers. These last three are among the firm's 1912 novelties, and should be noted.

Messrs. Dickson and Robinson had a few large vases of standard *Perpetuals* in their omnibus exhibit. *Gloriosa* (a fine large pink), *Electra* (orange and pink fancy), *Sunstar* (yellow with slight red markings) and *White Wonder* all were in excellent condition.

Among the other flowers in the show that caught our eye were *Alice*, a shapely pure white border variety, shown by Messrs. Jones and Sons of Shrewsbury; *Exquisite*, a lovely yellow-ground *Picotée* with a wire edge of crimson, shown by Mr. A. R. Brown of King's Norton, who also had in another collection *Cardinal*, scarlet self; *Iberia*, heliotrope self; and *Queen Eleanor*, scarlet on buff. *Sam Weller*, yellow ground, edged and splashed red and crimson, looked very attractive in Messrs. M. Campbell and Son's collection; *Linkman* and *Lord Steyne* were two other yellow-ground fancies that were put up by the same firm in Class 48. *Mrs. William Angus* is a very fine and large cerise-pink, the result of a cross between a "border" and a "Perpetual"—it was the most striking flower in Mr. W. Angus' stand, and should have a future before it. Many of the above varieties were to be found in the competitive classes. All those named, with the exception of Messrs. Young and Co., competed in one or more of them, with varying success. Messrs. Campbell and Son were first in Class 48 for a collection of undressed flowers, and second for the twelve varieties of three blooms each. In this latter class Mr. C. Wall of Bath was first, as he was also in Class 37 for a collection of cut Tree Carnations, beating such a celebrated grower as Mr. Wallace, who on this occasion was second, with Mr. Waters third. Mr. Wall had some grand flowers. One was *Lady Fuller*, a rich deep rose, which is to be sent out next year, and another, *Princess*, a new white, lightly striped with deep carmine. It is an easy grower, always in bloom and very sweet.

In the amateurs' class, No. 49, the prize-winners were Mr. W. H. Banks and Mr. A. B. Waite. In the latter's group we greatly admired *Togo*, a yellow with a dark crimson edge.

SWEET PEAS.

The importance of Shrewsbury and the utility of the Sweet Pea were strikingly shown by the assembling together of such a number of good vases as were to be seen in the competitive classes. With the advance of the season the colour deepens, and if only the cooler nights were not too cold to unnaturally lace some of the more sensitive shades with that wishy-washy edge which so much detracts from their beauty, a late date, by introducing us to a phase of Sweet Pea life which is certainly pleasing, might more often be chosen for a show.

There were three classes provided—for eighteens, for twelves and for sixes. In each of them there were good entries, and the winners had to fight for their places. In Class 34, which occupied more than a whole side of the Sweet Pea and Carnation tent, Scotland showed her heels to the other competitors. "N.B." took first prize with her Glasgow representative, Mr. G. Bowness, who, among others, staged a splendid white *labelled* (which, by the way, is a quite unusual feature of this big show) *Nora Unwin Improved*. It may have been the luck of its position that unduly favoured it, but it appeared to be a very good thing, with something of the substance of the old *Dorothy Eckford* about it. *King Alfred* (a fine salmon rose), *Prince George* and *Scarlet Emperor* were all in splendid condition. Mr. J. Smellie, also of "N.B.," was a good second, and had *Edrom Beauty* and *Dobbie's Cream* in fine form. A remarkable flower in the stand of the fourth prize winner (Mr. T. Jones of Ruabon) was *Wenvoe Castle*, one of those quaint art combinations of mauve and pink which are so difficult to define and reduce to the prosaic terms of a written description.

In Class 35, for twelve varieties, the general run of the blooms showed traces of the wet season, and in more cases than one they must have been glad of the kindly assistance of a rather dull day in concealing their defects. Mr. D. Gardiner was placed first, and he had, among others, *Barbara* and *Hercules*. Mr. E. Price was second, and Mr. P. D. Cooke third.

The first prize in Class 36 (six varieties) went to Mr. S. Robinson, and against his name we find in our note-book "v.g." He had a very nice lot, so fresh and clean, and of good size and quality. His winners were *Elsie Herbert*, *John Ingman*, *Elfrida Pearson*, *Nubian*, *Mrs. Hugh Dickson* and *Asta Ohn*. He beat that coming grower, Mr. W. H. Holloway of Shrewsbury, to whom second honours were adjudged.

The trade was represented by Mr. Robert Bolton, Messrs. Dobbie and Co., Messrs. Aldersey and Marsden Jones, Messrs. S. Bide and Son, and Messrs. Jones and Son of Shrewsbury. Here some of the novelties which are to be put into commerce this autumn were to be seen. In Messrs. Dobbie's group one of the most prominent was the "duplex" variety, *Inspector*; to quote from the catalogue, "a duplex form of *Earl Spencer*. The glorious orange-

salmon colour is deepened and intensified in this wonderful flower." As the double standards seem to have come to stay (for it does not appear, to judge from our personal observations, to be altogether a question of high culture once the tendency has been obtained), we welcome the word "duplex" to convey this meaning. *Brunette*, which received an award of merit at the "International," has a pleasing tone of rich mahogany in both standard and wings, and is almost, if not quite, a real self. *Lady Miller* is a notable addition to the rich warm pinks. We thought it very pretty when the tents were lit up with electric light. It was a pity so many of Mr. Bolton's fine exhibits were unnamed. It was a magnificent group, and received the award of a silver-gilt medal. We noted *Agricola*, a pleasing but curious shade of pink; *Lancashire*, a grand rosy pink; *R. F. Felton*, the charming lilac and lavender; and *Florence Nightingale*, an American novelty of 1911, lavender, suffused with rosy mauve.

Messrs. S. Bide are not going to introduce any new varieties this autumn with the sole exception of *Blue King*. We noticed three of their newest flowers—*Bertha Massey*, *Mrs. Steward Champion* and *Blue Belle*, the latter a grandiflora of what is euphemistically called by the Sweet Pea confraternity blue. A word of praise must be given for the lovely brownish red peduncled *Zarina*, one of the prettiest of salmon pink Sweet Peas.

Messrs. Aldersey and Marsden Jones had their new very pale salmon, *Mystery*. It was the most distinct novelty in the show. It gets away from the tone of *Barbara*, *Melba* and *Earl Spencer*, inasmuch as it has more warm flesh colour in its composition. *Topaz*, *Royal Red*, *Amber*, *Rosemary*, *Moonstone* and *Opal* were also shown. This last has not been quite fixed, but it is worth growing for its lovely tone of French grey. In this it resembles *Mother-o'-Pearl*, which readers may remember Mr. Jacob in his notes referred to as the "sweetest Sweet Pea grown."

* * * Owing to pressure on space we are compelled to hold over the reports of the Royal Horticultural Society's, Leith, Dalbeattie, Montrose, Poole, Urmston, Aberdeen and Ayr Shows.

GARDENING APPOINTMENT.

MR. W. COOPER, for the past twelve years gardener at Chadacre Hall, Bury St. Edmunds, has been appointed gardener to Mrs. Pearson, Millfield, Great Berkhamsted.

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ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

KNIPHOFIA CAULESCENS (*Grace Gardener*).—It is the nature of this species to behave as you describe, and this usually occurs with age or with specimens or groups that, having flowered, incline to spread laterally rather than otherwise. Quite in the same category in this respect is *K. Northia*. Your only course now will be to wait till the end of August and dig up and divide the plant, replanting the rosettes and burying the stems up to the leafy portion where roots are now forming. Should space permit and you have no desire to remove the plant or increase its numbers, a barrowful or so of rich soil, banked up around the stems, in conjunction with a few pieces of rugged rock would not only suffice to invigorate the plant, but would presently afford you a picturesque group of which you would be proud to possess. When such things get out of hand, as it were, March and April are the best months for dividing and replanting. Ailing these, what we now recommend would constitute good second.

PEONIES FAILING TO FLOWER (*T. B. M.*).—In the case of the herbaceous Peony, not a little either of success or failure has to do with individual examples, the strength, merit and general vitality of the plants. That the planter did his part in season and in reason would be but an item in the programme, since varieties differ in these just as individuals in the human race; and in your expectations you betray just a little impatience, since the Peony is not quick to re-establish, but slow. If to this natural slowness to recuperate a weakly plant is being dealt with, when the season of complete recuperation will be extended. A great depth of well-prepared, richly-manured soil, a position away from dense shade or hungry tree roots, September or October planting, moderate-sized plants whose plump crown-buds are the size of the index finger—these and not a little patience are the primary factors in the successful cultivation of the plants. Hence your kind buds may be but the evidences of weakness which time and good cultivation will overcome. If, therefore, you are assured that the soil and plants are all right, encourage the best possible growth by watering and giving liquid manure for a season or two, and meanwhile possess your soul in patience.

ROSE GARDEN.

ROSE FOLIAGE BLIGHTED (*G. Selous*).—The foliage has been affected by the Rose slugworm. You cannot do more than spray the foliage, especially on the under side, with nicotine wash or Hellebore wash. The former made as follows: Tobacco, 1 lb.; soft soap, 1 lb.; soft water, 12 gallons. Steep the Tobacco in water for some days, and then allow it to simmer over a fire for an hour; pour off the liquid, well crush the Tobacco and proceed again as before, adding the second extract to the first. This extract may be mixed with the dissolved soft soap, you may use pure nicotine, 98 per cent., 3 oz., and 2 oz. soft soap to ten gallons of water. Hellebore wash made as follows: Freshly-ground Hellebore, 1 oz.; water, 2 oz. The Hellebore and flour are mixed together with a little water, and then mixed with the rest of the ten gallons. It must be constantly stirred and sent out as a fine spray. There are also various preparations sold, such as Voss' Nicotine, Woburn Wash and Campbell's Tobacco Soap.

MANURING ROSES (*Burton*).—1. Basic slag may be applied to Roses that are established; but it is best given in October, at the rate of about four ounces per square yard, and well hoed into the soil. 2. Bone-meal applied on after pruning is quite a sufficient dose for one year. The only thing that would help the Rose Marchioness of Londonderry to open better would be to put a small shade over the buds. This would prevent dew and rain from wetting the petals together; or, at least, it would help to do this. 4. Pansies are best renewed each year by seed cuttings. These latter can be put in now in gritty soil by a north wall or hedge. In some gardens the plants thrive well for two or more years. Cut off all seed-pods, and some of the very straggling growths.

MISCELLANEOUS.

NAMES OF FRUIT.—*E. S. Martin*.—Pear Clapp's favorite.—*W. P.*—1 is undoubtedly Jargonelle, and must have been grafted on the tree; 2, Old Bergamotte; 3, Gansel's Bergamotte; 4, Josephine de Malines.—*T. S.*—Pears: 1, Caillot Rosat; 2, Louise Bonne de Jersey.

NAMES OF PLANTS.—*Harold Ostlere*.—*Crinum Powellii*.—*H. G. S.*—The Hornbeam (*Carpinus Betulus*).—*S. C. Hancock*.—*Caucalis Anthriscus* and *Melampyrum patense*. Get "Illustrations of the British Flora," by Nichol and Smith, price 10s. 6d. Published by L. Reeve and Co., 5, Henrietta Street, Covent Garden, London.—*W. F. Her.*—1, *Pittosporum tenuifolium* (this plant flowers only in the South-West, but the blossoms are not showy); 2, *Phygelius capensis*; 3, *Rubus odoratus* (Purple-flowering Raspberry); 4, *Physostegia virginiana*; 5, *Nepeta Mussinii*.—*O. O.*—1, *Colutea arborescens* (Bladder Senna); 2, *Stagis coccinea* (Scarlet Haw).—*F. J. K.*—1, *Tunica ciliata*; 2, *Erigeron macranthus*; 3, *Acena inermis*; 4, *Physostegia virginiana*; 5, *Echinacea purpurea*; 6, *Senecio autumnale striatum*; 7, *H. a. cupreum*; 8, *mon. bipinnatus*.—*J. E. C.*—*Saponaria officinalis* (Double-flowered Soapwort).—*R. L. F.*—*Iphelex hortensis rubra* (Mountain Spinach).—*G. T. S.*—The plants are *Trachelium caeruleum* and the white form of the same.

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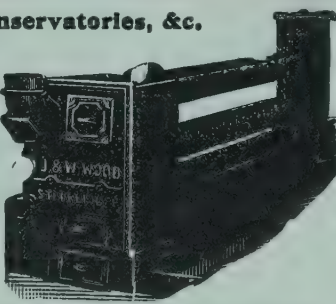
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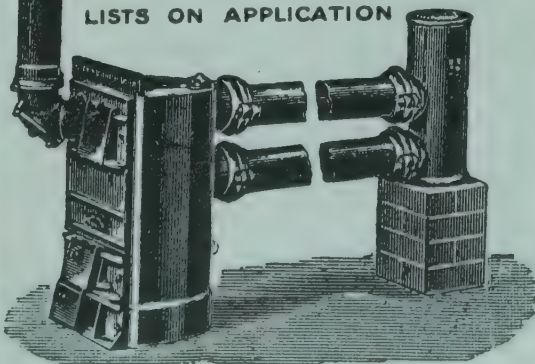
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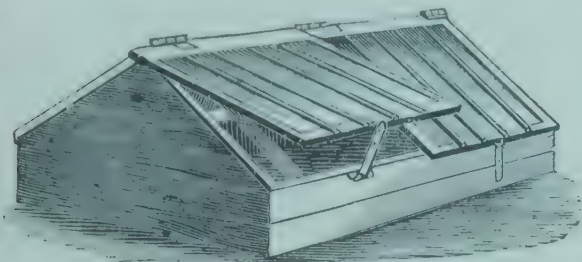
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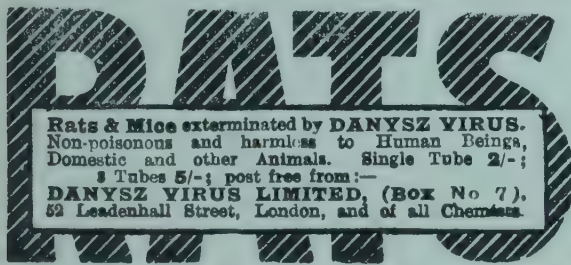
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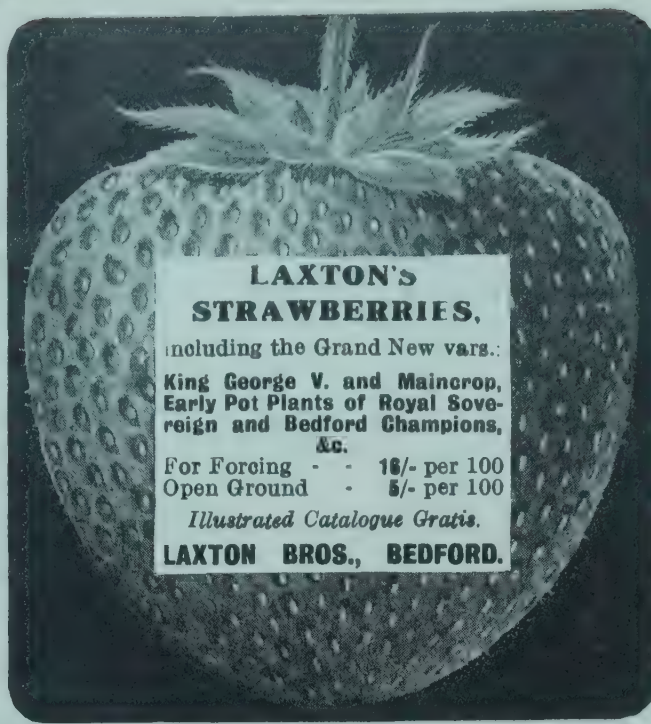
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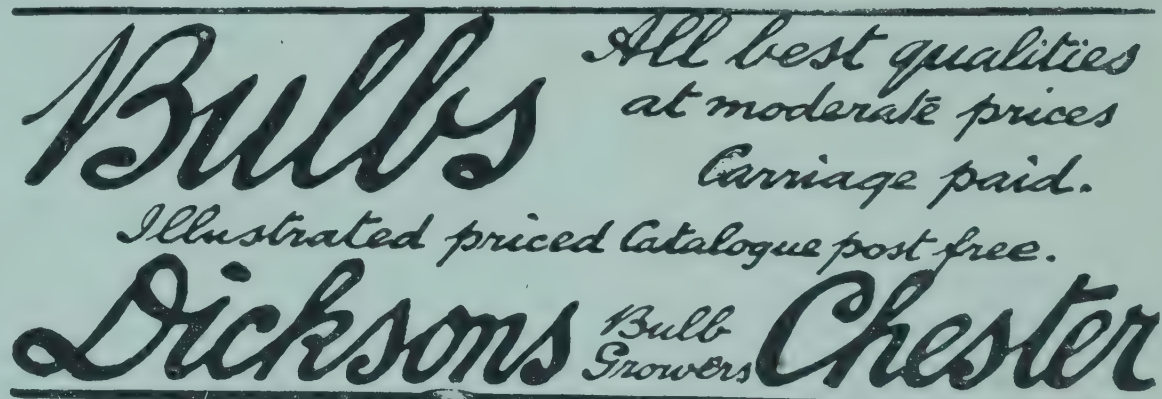
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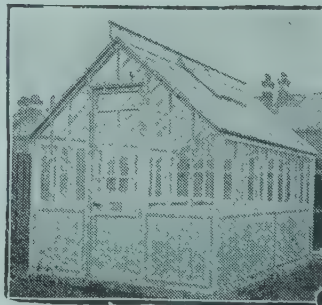
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THE GARDEN.

No. 2129.—Vol. LXXVI.

SEPTEMBER 7, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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NOTES OF THE WEEK.

Our Special Bulb Number.—Now that the season for planting bulbs is once more with us, we shall devote the greater part of our next issue, which will be considerably enlarged, to articles on bulbs for autumn planting. The Rev. J. Jacob, Mr. C. E. Shea, Mr. H. R. Darlington, Mr. F. Herbert Chapman and other well-known growers of various kinds of bulbs will contribute to that issue, for which we anticipate a large demand. In addition to numerous and unique black-and-white illustrations, there will be a coloured plate of Cottage Tulips; but the price of this special enlarged number will, as usual, be one penny.

The National Vegetable Society's Show.—We would remind our readers that the annual exhibition in connection with the National Vegetable Society is to be held this year in the Clarendon Hall, Watford, on Wednesday, October 2. Nearly two hundred pounds in prizes is being offered, and there are classes suitable for both large and small growers. Entries close on the 23rd inst. Copies of the schedule and full particulars concerning the show can be obtained from the hon. secretary, Mr. E. G. Quick, Kelmscott, Lockett Road, Wealdstone, Middlesex.

A Good White Phlox.—Now that so much interest is being taken in the herbaceous Phloxes, we ought not to lose sight of some of the older varieties, several of which are not yet surpassed. Among these is the white variety Mrs. E. H. Jenkins. We have had plants of this in flower for nearly seven weeks, and there is still a good sprinkling of blossoms. For its long period of flowering alone this Phlox is well worth growing. The blossoms are moderately large, pure white, and the flower-trusses have a good branching habit. It increases very rapidly, and is all that a good Phlox ought to be. It was raised some years ago by our esteemed contributor, Mr. E. H. Jenkins.

Importation of Potatoes to Jersey.—The Board of Agriculture and Fisheries desire to inform Potato growers and merchants that the States of the Island of Jersey have adopted an Act authorising the importation of Potatoes from the United Kingdom, as from the 17th ult., on the following conditions: Each consignment must be accompanied (a) by a declaration by the shipper indicating the farm where the Potatoes were grown and certifying that no case of wart disease of Potatoes has occurred on such farm; and (b) by a certificate of the Board of Agriculture and Fisheries, the Board of Agriculture for Scotland, or the Department of Agriculture and Technical Instruction for Ireland, as the case may be, to the effect that no case of the said disease has occurred within five miles of the farm where the Potatoes were grown. Intending exporters of Potatoes to Jersey should forward the declaration from the grower of the

Potatoes previously referred to when applying to the Board for a certificate. The declaration should state the name of the farm on which the Potatoes were grown, the parish in which it is situate and the nearest post town, in order that its exact position may be readily identified.

National Rose Society's Autumn Show.—The annual autumn exhibition in connection with the above society is to be held in the Royal Horticultural Hall, Vincent Square, Westminster, on the 12th inst. In a wet season such as the present it will be particularly interesting to see which Roses are the most satisfactory. Wonderful strides have been made in autumn-flowering Roses during recent years, and there is certain to be a good display.

A Good Hardy Crinum.—In every garden where the Crinum can be accommodated, whether with sheltering wall, greenhouse or fence, if not capable of standing in the open border, the typical *C. Powellii* is worthy of attention for the warmth of its colouring at this season. The rosy red flowers, even if small by comparison with other varieties, are certainly of the decorative order, and, deepening with age, are very attractive in the early autumn.

Sweet Peas Diseased.—At a meeting of the scientific committee of the Royal Horticultural Society held on the 27th ult., Sweet Pea plants from Mr. Dipnall were shown. The specimens were damaged by the "streak" disease, *Thielavia basicola*. Many of the leaves and parts of the stem had also patches of *Botrytus cinerea* growing on them. The roots were poorly developed, and showed signs of some check earlier in the season, probably overwatering in the early summer. As a method of preventing the attack, the deep and early autumn cultivation of the ground intended for next season's crop of Sweet Peas, a very moderate use of organic manure, thin seeding, and the frequent use of the Dutch hoe in place of watering during early droughts are suggested.

Growing Camellias in Decayed Wood.—In the current issue of the *Kew Bulletin* Mr. W. J. Bean, in describing a visit to various gardens in and around Florence, gives the following interesting note about Anthuriums and Camellias: "A visit was made to the School of Horticulture at Cascine on the outskirts of Florence. An interesting branch of activity here is the hybridisation and improvement of Anthuriums, especially of the red-spathed section. A group showing some of the best results secured a first prize at the recent International Show at Chelsea. Another interesting culture is that of Camellias in the decomposed wood of *Castanea sativa* (the Sweet Chestnut). This material, regarded here as a substitute for peat, is the brown, fungus-killed wood one sees in hollow trees, and Camellias, which will not grow in the ordinary soil, thrive well in it. *Acacia dealbata* also fails in the ordinary soil and is grafted on *A. longifolia*, which succeeds in it."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Hardy Pelargonium.—In THE GARDEN for August 31, page 433. *Pelargonium endlicherianum* is noted as being the only species possessing any claim to hardiness. Perhaps some of your readers would be interested to know that *P. triste*, although not so showy, will survive our winters at the foot of a warm wall. I saw the species a fortnight ago in the Cambridge Botanic Garden growing by a greenhouse wall, where I know it has existed for at least ten years. It was then carrying two spikes of its curiously-marked, brownish yellow flowers well above the pretty lacinated foliage. Like *P. endlicherianum*, it dies down to the ground each winter.—E. J. ALLARD

Roses with Bad Habits.—I am more than astonished to note on page 422 "H. P." denouncing that grand garden Rose General Macarthur as being subject to mildew. We have only had it for two seasons, but each of these has been so entirely different from the other that no better test could be devised for proving the habit of a Rose. Last year it was practically free from this troublesome disease, while up to the present (August 27) not the slightest sign of mildew is to be seen this year, while some other varieties are rather badly touched. Only the other day a gentleman visiting here remarked that this Rose was worth cultivating for its foliage alone. Is not "H. P." confounding General Macarthur with some other variety?—C. B., *Linlithgow*.

Clarkias and Godetias.—In "Notes of the Week," issue August 24, the references to these plants are interesting and instructive. The *Clarkia* is becoming a very popular annual, both for filling borders and in a cut state for vases, the tall varieties producing fine spikes of blossoms peculiarly adapted for placing in the tall vases now so extensively used. During the present summer I have noticed that *Clarkias* have been very effectively used in dinner-table competitions at some of our shows. I first saw a table so decorated about four years ago, and was much pleased with the effect. The deep and light pink, purple, salmon, rose and white varieties are very charming. The *Godetias* are equally beautiful, and should certainly be freely used in a cut state, as the flowers last so long in vases. I was not aware, before reading the note referred to, that they would last such a long time in a fresh condition.—SHAMROCK.

Puschkinias, Snowdrops and Winter Crocuses. I was glad to find from the note on *Puschkinias*, page 421, issue August 14, that I am not the only ignorant amateur who till recently was unacquainted with these fascinating little flowers. I got a few last autumn and (being a genuine "amateur") planted them in a small wooden box for fear I might waste one of my few precious bulb bowls on something unsatisfactory. However, as soon as the first spike of bloom opened, I armed myself with a (kitchen) fork and promptly transplanted them into a blue and white china bowl. The accommodating little bulbs bore "the move" without flinching, and, what is more, continued to flourish for quite a long time in the window of a room lighted by gas! This year my bulb-merchant has an order for a hundred, which I intend to put in little open lattice-work blue and white Japanese Fern pots, and I hope to have some very dainty specimens on the flower table in my "pleasant parlour" in the early spring. I can

endorse Mr. Bowles' advice to plant Snowdrops early (just like *Lilium candidum*); in fact, I lifted and replanted mine in June before their foliage had quite faded away, with the happy result—after the failures of many years—that I can now proudly say I have enough for my small garden, in the shape of a border about twenty feet long by over two feet wide, entirely filled with Snowdrops (increased from about two hundred planted eight years ago). I am surprised Mr. Bowles omitted *Crocus Imperati* from his list (most of which I have tried), for, so far as my pocket has permitted me to experiment, it is much the best of all, and can be relied on to furnish some pretty bowls for the table by Christmas-time without any artificial heat. It also flowers freely and continues long in bloom in a room, a great consideration with—"ANNE" AMATEUR.

Judges Judged.—The recent correspondence in THE GARDEN on this subject has been interesting and, I think, instructive in many ways, but more particularly perhaps as demonstrating the importance attached by the writers to a strict adherence to the letter and spirit of the rules laid down in the schedule for the information and guidance of exhibitors and judges alike. There are still one or two points on which a slight difference of opinion exists among judges. One of these, and I think the principal one, was incidentally mentioned in Mr. Hudson's letter on the subject in your issue of last week. I refer to the subject of disqualification. It is always a delicate matter, and one which judges approach with reluctance and regret, because it is sure to cause disappointment, and even sometimes pain, to one or more of the exhibitors. Perhaps the most frequent cause of disqualification is the inclusion of too many (or too few) plants in a collection for which a distinct number of plants is asked for, or, in the case of fruit, in dishes of Peaches, Nectarines, Apples, Pears, &c., where six fruits are asked for and where seven or more are included. It is suggested that the better way of dealing with these mistakes is to request permission from the authorities of the show to draw the exhibitor's attention to this fact, in order to give him an opportunity of correcting the mistake. It is a stupid mistake to make, and one for which there can be no excuse, and I doubt very much if either the judges or the authorities have power legally to redress the mistake once the exhibit has been placed on the stage and out of the exhibitor's hands. Certainly if such an exhibit is awarded a prize, the prize-winner next below has, in my opinion, a valid reason for protesting against an award being given to an exhibit which had been so favoured by the judges. I am strengthened in this opinion by the fact pointed out in Mr. John Wright's letter—that it is quite competent for the judges to recommend to the authorities, in all cases where they are convinced that the error has been a genuine and accidental one, that an extra prize be awarded to the disqualified exhibit more or less equivalent to the prize lost in consequence of the error, so that the exhibitor is punished for the error but suffers little or no material loss. If this rule were rigidly carried out, there would be fewer mistakes of this sort in future.—O. T., V.M.H.

The Sporting of Californian-grown Sweet Peas.—I read with pleasure the article under this heading in the issue dated August 24, page 423, which is very timely. This season has given many growers cause for complaint in finding foreign stocks untrue, and I trust that our experts will come along and voice their views in the matter,

and thereby assist in trying to find the real cause of the trouble. It is interesting to hear that the mixed stocks are all Californian-grown. This certainly advances us one step, which should prove helpful in locating the cause. We must, however, try to probe the matter further, and to this end I contribute my observations. I have noticed that the cross-fertilisation theory is always advanced when this subject is discussed, and while it may to some extent actually happen, it would not explain all the mixtures that we get from Californian stocks. To cite a case in point, I have this season had a blue bicolor in Dainty Spencer, Etta Dyke and Mrs. Hallam, and an Elsie Herbert type in Etta Dyke and Asta Ohn. Now the seedsman, who is the grower, assures me they are sports, which seems truly remarkable, especially so when it is considered the same (sports?) appear in three and two cases respectively, and, it should be noted, in colours that are far apart. Despite the assurances that Californian stocks are as severely rogued as English, I think it must be admitted that the conditions under which the former are grown are not so favourable to true stocks as the English, although the seed is, generally speaking, better harvested and germinates excellently. The conditions referred to are the warm climate, which naturally forces the flowers out so quickly that they are over and seed-pods forming in a very short time, thereby giving little opportunity to the grower to get over his acres of plants with that regularity that is essential, especially so when the plants are on the ground. Further, quick ripening of seed means that some will fall before it can be gathered, and will come up next season. As we all realise that we cannot do without the foreign seed, we can only hope that something further will be done to ensure stocks being produced that will give a higher percentage of true flowers than they at present do.—GEORGE TUCKER.

— The great disappointment I have experienced in regard to some varieties I have grown this season leads me to think that probably some of the seed supplied to me—and that, too, by a firm of great repute in this country—must have been Californian-grown. This is the conclusion to which I am driven since reading the article in your issue of the 24th ult., page 423, or, rather, by the reading of that article together with knowledge gained from observations made during many years, added to what I noticed at the time about the seed purchased as stated and the behaviour of the plants since. The variety Clara Curtis, from ten seeds sown, gave one plant bearing maroon flowers similar to Othello, the other plants true; but Helen Lewis was far worse, showing no fewer than five poor varieties and only one plant bearing flowers nearly like the original, and so I might go on in regard to another half-dozen at least. I am one of those who "have bluntly stated that the stocks were mixed," and to that explanation I shall hold until some other has been clearly proved to apply to the case. No doubt there are among raisers and others those who, if they would, "could a tale unfold" upon this subject. In my opinion nothing short of an investigation on the spot, that is, in California itself, will be productive of real satisfaction to the disappointed growers and irritated merchants of this country. To carry out such a bold scheme, an expert should be chosen by one of our great societies, say, the Royal Horticultural Society or the National Sweet Pea Society, the funds being provided partly by those societies and partly by the great firms most affected—WILLIAM BOOTH, *Howsham, Lincoln*.

A Graceful Shrub (*Cercidiphyllum japonicum*). I am rather interested in the question of the hardiness of *Cercidiphyllum japonicum*, which, I am told, is not quite hardy. Young plants have stood the last two winters with me, and do not appear to have suffered at all. It is, however, one of the subjects which looks as if it would be easily injured in appearance by high winds, and a storm a month or so ago rather defaced one of my plants by knocking about the leaves. It is rather a graceful-looking shrub at present, and one would like to know of its hardiness. My plants are only about four feet high, but it is said to grow to 20 feet in its native country.—S. ARNOTT.

Three Crops of Pears in One Year.—It is a common occurrence the blossoming of a Pear or Apple tree late in the summer while fruits are at the same time coming to maturity on it. This year I have a Pear tree, Durondeau, trained as a cordon, bearing fruits set at different times—the first set on an ordinary spur, the second on young wood growing from a spur higher up, and the third formed on the leader, about four weeks intervening between the three lots of flowers. Undoubtedly it is all to be accounted for by the exceptionally hot summer of last year, which matured the wood and buds so thoroughly.—AVON.

Nelumbium Flowers at Christchurch. I was greatly interested in the note on *Nelumbium speciosum* which appeared in THE GARDEN of August 10, page 397. I am enclosing a photograph of a plant of *Nelumbium speciosum roseum* growing in the aquatic-house in these gardens, which you may be able to reproduce in THE GARDEN. The leaves of our plant are quite 18 inches in diameter, and the flowers, which are of a beautiful rosy pink, average 10 inches in width, while the plant itself is nearly seven feet high and is growing in a tank 18 inches in depth. The *Nelumbium* seems to revel in a rooting medium composed chiefly of turfy loam and cow-manure. We succeeded last summer in flowering the variety album. This year the plant is not so robust, but is now making some good growths. I might mention that the temperature of the water in the tank during the growing season is maintained at a minimum of 70°, and a fresh supply of water is run in daily. Here also the blue *Nymphaea stellata* and several of its varieties do well, flowering profusely all through the summer.—JAMES MURRAY, *Sopley Park Gardens, Christchurch.*

FORTHCOMING EVENTS.

September 9.—National Chrysanthemum Society's Floral Committee Meeting at Carr's Restaurant, Strand. United Horticultural Benefit and Provident Society's Committee Meeting.

September 10.—Royal Horticultural Society's Exhibition at Vincent Square, Westminster. Lecture by Miss Troyte-Bullock on "Cape Pelargoniums" at three o'clock.

September 11.—East Anglian Horticultural Club's Meeting. Royal Caledonian Horticultural Society's Autumn Show (two days).

September 12.—National Rose Society's Autumn Show at Vincent Square.

September 14.—Galashiels Flower Show.

THE ROSE GARDEN.

ROSE CONRAD F. MEYER.

HAVING grown this useful town Rose from the very first, I think I can enlighten some of those who complain of its behaviour. It is so valuable under some conditions that I feel it is possible it may be unsatisfactory where Roses thrive without any very particular care, and so I will tell of the conditions where it thrives and flowers freely, and also of two or three cases where it is decidedly unsatisfactory.

In a town garden near the sea in Yorkshire, where ordinary Roses refuse to thrive, this hybrid of *rugosa* has proved quite invaluable, flowering each year more abundantly and giving also some

evergreen with quantities of fine flowers. I notice that my big bushes flower more freely than other folk's, and I have, after six or seven years' close watching, come to the conclusion that this early thinning, pruning and tying out is a great factor in the making of flower-buds, as growth goes on so late in autumn in this Rose. Of course, it flowered better than ever this spring and early summer after last year's heat and drought, but with care in carrying out the details I have given, I am sure the amount of bloom is increased in all seasons.

As all the world knows, *rugosa* Roses thrive best in sandy and peaty soils, so I strongly recommended this Rose to those who garden in the smoky districts of Yorkshire and on the light soils so prevalent there. To my great surprise I have found that though the plants grow very vigorously, they do not flower well, and the foliage that is so splendid and weather-proof by the sea soon drops and is affected by spot, as your correspondents complain, so that it is of no value in those places, even with considerable care. One reason I think is that it suffers if its roots get thoroughly dry in summer, and so makes still more late autumn growth; but I am inclined to say that it flowers much the best in a clay soil that is well impregnated with lime—a very curious thing when one considers its parentage.

Before I finish this little article I should strongly recommend another *rugosa* hybrid to your readers, for I do not believe it is known as it deserves. It is M. Gravereaux's *Parfum de L'Hay*, a red-flowered Rose, extremely sweet, as its name implies, with superb foliage and growth, which sends up enormous shoots in the summer that are crowned in September with large panicles of flowers in profusion. The flowers in autumn are brilliant in colour, and will pass muster anywhere as good blooms of that best of Roses, General Jacqueminot. I shall never forget my surprise at its beauty last year, and even this year it promises to repeat it if the weather will permit; but these cold drenching rains and cloudy skies must in the long run try even so hardy and vigorous a Rose as *Parfum de L'Hay*.

I am reminded by foreign friends that the best stock for strong-growing Roses on light and sandy soils is the Japanese Rose, *Rosa rugosa*. As in the case of

the Briar, young seedlings, which can be grafted or budded below the collar, are the best subjects for using as a stock; but to the amateur who probably has plenty of strong suckers springing up at some distance from his bushes of *rugosa*, he will find he can utilise them easily by pulling them up from the soil till a portion of the smooth underground stem is exposed. He can then bud on it, and, after the maiden has flowered in due course the next season, he can sever it and plant it where he chooses. The Dutch find this stock far the best in their light and sandy soils, and so I believe it would be of use in England, especially in smoky districts and on dry soils.

Scarborough.

E. H. WOODALL.

[At least one large firm of Rose nurserymen in this country uses the *rugosa* stock for standard Roses, and we understand that such plants do well in almost any soil and transplant very easily.—ED.]



THE SACRED LOTUS (*NELUMBIUM SPECIOSUM*) IN THE GARDENS AT SOPLEY PARK, CHRISTCHURCH.

very bright flowers in the autumn. The soil is strong clay, the climate generally cool and the growths extremely vigorous, so that my aim has always been to ripen the long summer shoots and plump up the flowering eyes on the upper half of the shoots. As it happens, I always leave this garden in October, and so before I leave I always prune and train this Rose. From the month of August I suppress entirely those soft, strong young shoots that are so apt to start from the base of the year's shoots, and during the summer I cut out the shoots that flowered most freely in June at the point where the first strong growth has been made, keeping, of course, all vigorous growths. In October I deliberately prune and cut out all weak and ill-placed wood, and tie out all the best and longest new shoots, either to a railing or an espalier, and still more frequently tie down many vigorous shoots over *Olearia Haastii* bushes, when the next spring they cover that hardy seaside

ROSES IN TOWN GARDENS.

IN "Notes of the Week" for the issue dated August 24 (page 421) is a short paragraph *re* Roses in London. That Roses can be grown in London and its immediate suburbs has been proved over and over again by the beautiful boxes of exhibition blooms staged annually at the metropolitan exhibition of the National Rose Society. I have seen really first-rate Roses in the class for those grown within eight and also within six miles of Charing Cross, and I take it we may style such a radius as town. If a double and rather balled-in variety like Caroline Testout opens freely in Hyde Park during such a sunless and dripping season as the present

more especially as we now have such a good type of free growth and opening to be found in the varieties named and others with the same characteristics. Thoroughly examine your ground and make that right; then you may reasonably look for a fair measure of success. A. P.

ROSE ENTENTE CORDIALE.

ALTHOUGH this beautiful Hybrid Tea Rose has been in cultivation in this country for two or three years, little has, so far, been written about it, yet it is one of the best for garden decoration, and should, if cultivated for the purpose, give excellent flowers for exhibition. It is a moderately



[AUTUMN BLOOMS OF ROSE ENTENTE CORDIALE, A BEAUTIFUL HYBRID TEA OF RECENT INTRODUCTION.]

is proving, we can surely look forward to a better measure of success when making use of more suitable varieties; and my present object is to name a few of the best of these.

A free-flowering white (in addition to Frau Karl Druschki, which is so well known as to need no comments here) I would select is Molly Sharman Crawford. This Rose is a good grower, exceptionally free and persistent in blooming, and invariably opens well. For deep scarlets I would choose General Macarthur and Grüss an Teplitz. In addition to Caroline Testout, we find freely-opening pinks in Lady Ashtown and Killarney, while for deep yellows and orange shades few will expand more readily than the exquisitely-scented Mme. Ravary and Marquise de Sinety. Edu Meyer and Theresa Bevan are a couple of salmon yellows that are free in every way and open well. There are many others; indeed, quite a list could be made up of varieties I have seen staged in the two classes for London which have been well represented during many and varied seasons.

So long as one confines the selection to really good and free growers, keeping rather closely to those with few petals, there is no more reason why an ordinary garden should not produce fairly satisfactory Roses in and near to London as is the case with many other plants and trees. With less smoke and fog owing to the use of electricity when compared with a few decades ago, we should even have a better chance of success than before,

vigorous variety and flowers very freely, the large, beautifully-shaped blooms being produced separately on good stems. The colour of these is clear pale cream, and I see that most nursery descriptions state that the edges of the petals are tinted carmine, but this feature has not developed on my plants. The blooms are very fragrant, and this, with their beautiful form and purity, should secure for this Rose a very warm reception. The foliage is hard and good, and so far, despite the wet, I have seen no mildew on it. Good as Entente Cordiale was at the first or summer flowering, the second crop has been even better, and the illustration shows two blooms that were cut at the end of the third week in August. H.

THE FLOWER GARDEN.

NOBLE PLANTS FOR SHADY PLACES.

MOST gardens have shady places beneath trees or under walls where very little sun can penetrate. In these places Pæonies, with their most beautiful varied colours, and some with delicious fragrance, will grow luxuriantly. The flowers last much longer than if exposed to full sunshine, and it is very essential the plants should have moisture. Hybrids of recent introduction bear very large flowers, and include colours ranging from white to pale

flesh, pale pink to brightest purple, and pale primrose to rosy salmon. The leaves of the Pæony are a most useful autumn foliage for decorating, often turning to a beautiful red and bronze shade. Yellow Narcissus bulbs dotted among the plants give a very charming effect in early spring. Pæonies can be planted now or within the next few months in rich deep soil, adding plenty of well-decayed horse or cow manure. In dry seasons, and as soon as the buds are formed in early spring, they must be well soaked continually with weak liquid manure. Being strong, robust-growing plants, they soon impoverish the soil. Plants that are well established should have a trench dug out around them, partly filling it with well-decayed manure and the surface space with soil, treading the whole very firmly. Other suitable plants for shady places are Primula bulleyana, P. sikkimensis and P. japonica, hardy Spiræas in variety, Funkias, Primroses and Polyanthuses, Vincas (Periwinkle) and hardy Ferns. J. L. E.

SEASONABLE NOTES ON CARNATIONS.

Rooted Layers.—By the present date all layers correctly cut and pegged down with proper care in mounds of specially-prepared soil will, provided they have had necessary attention subsequently, be excellently rooted, and the question of where they are to be wintered must have immediate consideration. Notwithstanding the fact that the Carnation is a hardy plant, there are certain circumstances and conditions which render it wise not wholly to rely on plants put out in beds and borders in September. For example, in low-lying damp gardens, where the soil is on the heavy side, it is more than likely that the winter losses among plants in the open will be serious, not because frost has injured them so much as because they could not withstand the effects of a combination of damp atmosphere and frost. Again, numbers of modern varieties, and more particularly so those of the beautiful yellow-ground section, have not as sound a constitution as the older varieties, and as many of these are on the expensive side to purchase, it is not wise to risk the whole of the stock in the garden. We are, therefore, forced to have recourse to potting a certain number for wintering in cold frames. It is, of course, necessary for every individual cultivator to decide on the merits of his own case what system he will choose; but the desirability of having some reserve, even when the general conditions are apparently favourable, must never be overlooked. Rather more trouble is necessarily involved, but this will not weigh heavily with the man who aspires to achieve the finest results.

The Soil in Beds.—Depth and friability are essential to success, and it is obviously of decided importance that enough food shall be present to carry the plants on through the following summer. Thus the digging—it really ought not to stop short of bastard-trenching—must be thoroughly accomplished, and a sufficient quantity of sweet manure must be mixed into the second spit to provide plentiful supplies of food next season. This is buried well down to avoid contact with the roots, which I consider to be most undesirable. In some instances, no doubt, the soil will contain enough lime; but in the majority of gardens this will not be the case, and the grower will be wise who decides to add some in the convenient form of crushed mortar or lime rubble. Where it is inconvenient or impossible to use any organic

manures, the advisability of forking into the top spit a little concentrated fertiliser may well be considered; but the fact that it is just as easy, if it be not a trifle easier, to do more harm than good with it at this season of the year must not be overlooked. It is, however, improbable that anything other than advantage could accrue upon a mixture of superphosphate of lime and kainit in equal proportions at the rate of 3oz. to the square yard. Basic slag, very finely ground, has proved most beneficial in my own garden, the dressing to each square yard being 4oz. worked into the top spit.

Potting Plants.—The first thing of importance in this phase of Carnation culture is to prepare enough small pots. They must be perfectly clean, and the provision for drainage must be efficient. It is, of course, true that the amount of water demanded during the winter months will be small, but it is necessary to see that there can be no danger of the slightest stagnation, or failure is sure to ensue. Therefore have one good crock over the hole in the bottom of the pot, and put round it in such manner that the passage of water will be facilitated two or three other pieces, and cover with coarse moss or a little of the rougher parts of the compost which, it will be remembered, it was suggested should be mixed two or three weeks in advance of actual use. In potting, firmness is desirable, but ramming in with a potting-stick must be deprecated, as it prevents the satisfactory extension of the roots. The soil ought to be pleasantly moist when used, and it should be kept in that condition subsequently. F. R.

DAFFODIL NOTES.

SOME MODERATE-PRICED DAFFODILS FOR SHOWING.

(Continued from page 443.)

Division IX., Poeticus Varieties.—I have lately written some notes on these. Almost all of them need to be caught at the critical moment if they are to be staged flat without "buckling." One must, accordingly, have more varieties in proportion to pick from than would be wanted in other sections. This is the most important bit of advice that I can give to would-be exhibitors. The corollary is spread out what you have over as long a flowering-time as possible. My earliest is Chaucer (April 4, 1912), and my latest is the lovely pale green eyed Tom Hood. It opened this year on April 18, fourteen days after Chaucer. Here are a nice eighteen. The first six are the more expensive ones: Acme (all-red eye), Kingsley, Matthew Arnold, Tennyson, Ruskin, Timon, Cassandra, Homer, Horace, Virgil, Laureate, Minerva, Rudyard Kipling, Ibis, George Herbert, Oliver Goldsmith, Almira and Orange Ring. From these it should be possible to cut a good six in almost any year. When Kestrel, Socrates and Snow King become cheaper, they may be added.

Class X., Double Varieties.—Little need be said of these. The new ones are too dear and seldom, if ever, seen in competition. I wonder how many are sold at such high prices. Inglescombe, Argent, Dubloon, Sulphur Phoenix, Apricot Phoenix, "Red and Gold" and Volcano are among the best; but the last three are expensive. Each of them is beyond my "moderate."

Class XI., Various Species and Hybrids.—Much as I like some of the little gems that this division contains, and with all respect to

Mrs. Johnston of Bideford, who offers a prize at the "Midland," I do not think they are the things to be shown in competition. To me they do not mix, as people say. A non-competitive little group would be charming and instructive, but not so if staged with "show" flowers. JOSEPH JACOB.

THE ROCK AND WATER GARDEN.

A BEAUTIFUL HAREBELL.

(*CAMPANULA HOSTII*.)

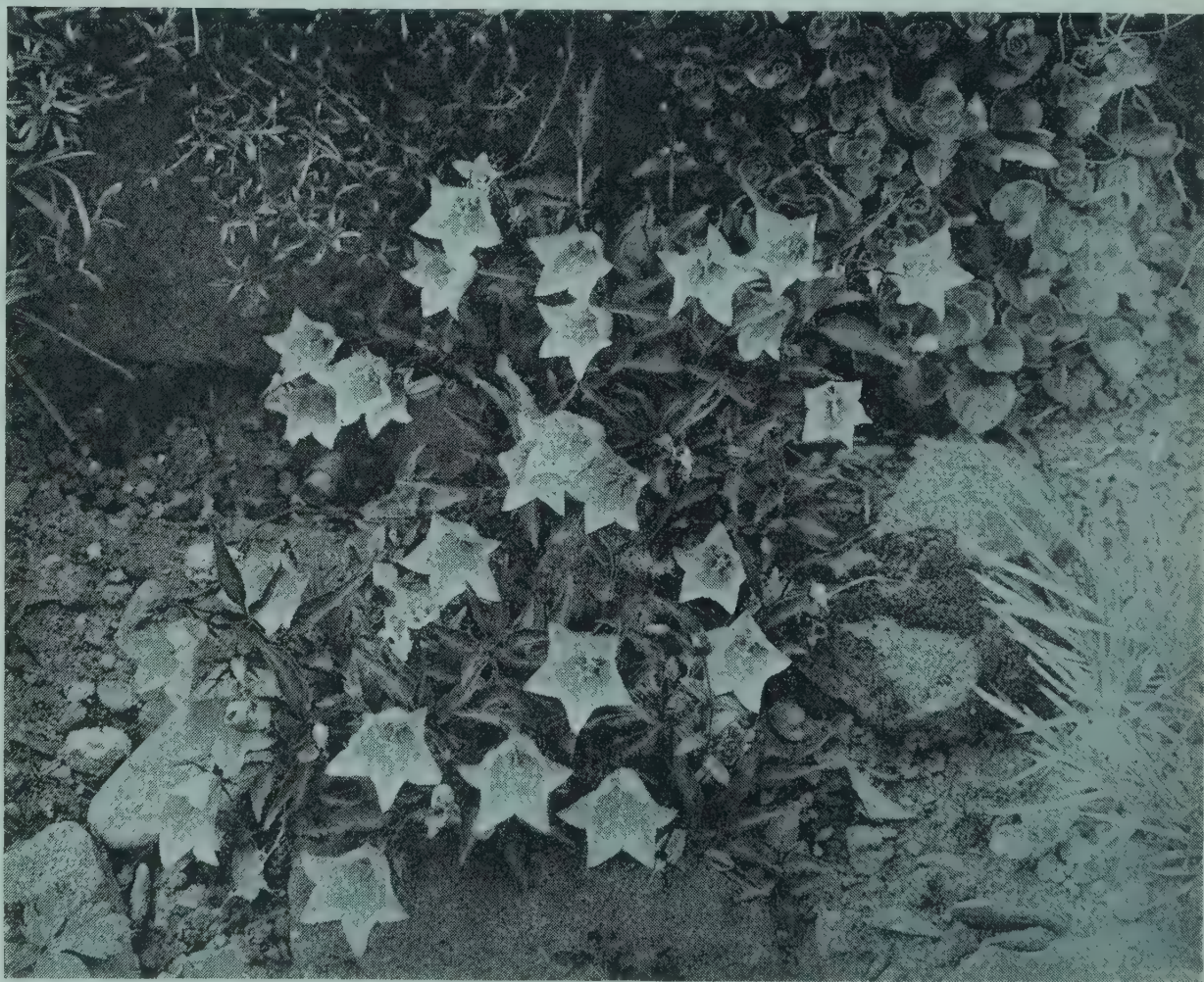
FEW hardy plants possess greater attractions than the Campanulas, from whose number we can choose many beautiful flowers either for the border or the rock garden. Some are excellent for either purpose, and among them none is better than *C. Hostii*, which may be called a glorified form of our common Harebell, with much larger and finer flowers of a deep purple, and a more sturdy plant in every way. This Harebell, figured in the accompanying illustration, is referred to by authorities as a variety of *C. rotundifolia*, but

growing well in ordinary soil, and in summer giving plenty of flowers for a long period, these lasting much longer in partial shade than in sun. S. ARNOTT.

THE BEST SAXIFRAGES AND HOW TO GROW THEM.

Just as the genus *Saxifraga* is by far the most important race of hardy alpine plants, so is it the most replete of species, to say nothing of that equally great following of varieties which, combined, go to make the task of the amateur or beginner a most difficult, if not an impossible, one in making a selection of the best. Nor is the task rendered the more easy by the majority of hardy plant dealers, who appear to regard their duty complete by affording descriptions of a most meagre kind and the price at which they are to be had. How confusing, not to say embarrassing, all this must be to the amateur need not be dwelt upon here, and in the circumstances no apology is offered for directing attention to some of the more distinct.

By the "best Saxifrages" is intended those that with a little intelligence and care—following always the teachings of the instructor by the way—may be grown by all, whether the desire be in the



CAMPANULA HOSTII, A NEAR RELATIVE OF THE BRITISH HAREBELL AND A CHARMING PLANT FOR THE ROCK GARDEN.

is so distinct that it is difficult for the gardener to accept this reference. It is a much finer plant in every way, and one is glad to see from his book, "My Rock Garden," that Mr. Reginald Farrer, who knows these Bell-flowers so well, evidently agrees with the opinion that it is very distinct. It grows with me about a foot high, has a sturdy, firm, yet elegant habit of growth, and gives sheaves of handsome large purple bells. It evidently comes true from seeds, and can also be increased by division. It is an excellent rock garden or border plant, and is most obliging in its disposition,

direction of pot-grown examples for alpine-house or frame, for the rudest rockery bank of a couple of feet or so in height, or for the more elaborately-arranged rockery itself.

Regarded broadly, the genus divides itself quite naturally, for the most part, into two or three main groups or sections, of which the silvers or "encrusted" forms, the "mossies" and those bolder-leaved sorts which constitute the Megasea section are the most important. To render these notes of greater value, it is proposed to treat each section separately, and I take the encrusted section



THE "SUNSET" BORDER AT KENTFORD. THE FLOWERS ARE ARRANGED HERE TO REPRESENT THE COLOURS OF THE SETTING SUN.

first by reason of their beauty, their outstanding superiority and intrinsic worth. Culturally, it may be remarked of many of these that while they do not object to living upon the fat of the land—i.e., comparatively rich loamy soils—they incline to a greater or more pronounced silvery hue when grown in deep sandy loam to which old mortar or ceiling plaster—one of the best possible constituents of a *Saxifraga* soil—has been freely added.

***Saxifraga Aizoon*.**—A good silvery kind and the type of an invaluable host flowering in May and June. All the varieties are of free growth, and as carpeters of the soil are most reliable. *S. A. rosularis*, white; *S. A. lutea*, palest primrose white; and *S. A. rosea* are the best. The last-named is a gem, whose rosy flowers on crimson peduncles or stems appeal to all. *S. A. balkana* is a delightful plant, the big whitish flowers being copiously spotted with pink. Any good loamy soil.

***S. apiculata*.**—A yellow-flowered kind of the freest growth and easiest culture in good sandy or even stony soil. The plant forms a cushion-like tuft, which from February to April is mantled with the clusters of blossoms on 3-inch-high stems. *S. a. Maylii* is a late-flowering form of this indispensable plant.

***S. burseriana major*.**—The prince of the white-flowered silvery Rock-foils. From a spiny grey tuft in February rise solitary stems bearing flowers of sparkling purity the size of a shilling. *S. b. Gloria*, *S. b. magna* and *S. b. speciosa* are other choice varieties of this set, valuable one and all to the cultivator of a select few because of their successional flowering. Deep, gritty loam and perfect drainage are required for all,

***S. cochlearis*.**—I look upon this as one of the most beautiful of a great race. It flowers in June, when the nearly foot-high panicles are a cloud of snowy pink-peppered blossoms. *S. c. major* is of larger growth in all its parts, while *S. c. minor*, also known in gardens as *S. valdensis* (though not the true plant), is a miniature of the first, whose elegant sprays of white please all-comers. This little tribe have a conspicuous beauty of their own even when not in flower.

S. rocheliana and its variety *coriophylla* are of the tufted set, and form cushions of growth, studded

dry banks it becomes starved. The flowers and anthers are rich yellow and appear in March and April.

S. Hostii is one of the most valuable of the silvery kinds, a plant free in growth and readily increased. Its flowering sprays are 15 inches high. It is most effective in colonies, and flowers in April and May. Any good gritty loam.

S. kolenatiana is not unlike some of the *Aizoon* forms, but with flowers of rosy pink. It is a May-flowering kind and fond of chalk or limestone.

with snowy flowers on 4-inch-high stems in April and May. These are most desirable and easily grown.

S. Cotyledon and its variety *S. C. pyramidalis*, whose giant white plumes are seen in many decorations, are indispensable to all. The natural flowering period is June and July, but the plant is forced in flower much earlier. *S. c. icelandica* is a variety 3 feet high, and appears in the last-named month as a fitting finale to a great race. Sandy or gritty loam.

S. crustata, *S. cristata*, *S. pectinata* and a rather numerous nearly-allied following known in nursery gardens are all neat-habited silvers flowering in May. They are highly attractive and white-flowered. Sandy or gritty soils.

S. Elizabethæ is not a silver, but a great beauty, producing a carpet of spiny grey-green leaves and big primrose yellow flowers in clusters on 4-inch-high stems in March and April. It is a most abundant bloomer, and grows freely in light, well-drained soils.

S. sancta is also a soil carpeter, and if freely grown, flowers well. On



THE SUNK GARDEN AT REGAL LODGE, AS SEEN FROM THE LOGGIA.

S. lantoscana and its variety *S. l. superba* are in every way excellent silvers of the long-leaved set, and produce clustered racemes of white flowers on 6-inch-high stems in April and May. No selection, however small, would be complete without these. Gritty loam of good depth and free drainage.

S. lingulata.—A most valuable silvery kind, whose well-marked leaves and snow white flowers appeal to all. The flowers appear in May and June, and there is an elegant airy grace about the plant which marks it well. Botanically, this is the supposed type of the last-named, though in nursery collections they are kept distinct. It is an exceedingly beautiful Saxifrage.

modified *burseriana*, appear in February. The plant is happy in any light, sandy soil.

S. scardica obtusa.—A most valuable white February-flowering sort of about four inches in height. The plant is of quite easy culture, grows freely, after the manner of *S. rocheliana*, and is in every way desirable. Coming rather near this, but even earlier in flower, is one called *S. Kestonii*. It is valuable by reason of its time of flowering. *S. scardica* (true) is a rare plant, flowering in March or early April, and is quite distinct from the above.

S. Boydii is the queen of yellow-flowered Saxifragas and a rarity for the specialist. A well-grown plant is always a great attraction to those who love the Saxifragas. Two other yellow-flowered gems of nearly-allied parentage

THE GARDENS AT REGAL LODGE, KENTFORD.

FROM the time that one steps out upon the paved terrace until the survey of the entire garden has been completed, the visitor to Regal Lodge Gardens, Kentford, must feel that he is in an enchanted garden that has been designed in perfect taste and laid out with consummate skill. It is, in fact, an artist's garden, perfect in point of colour and grouping. Moreover, it is a garden possessing many features, each of which blends unconsciously into the next without undue formality or any leaning towards overcrowding.



THE PAVED GARDEN AT REGAL LODGE, WITH THE ITALIAN GARDEN IN THE BACKGROUND.

S. longifolia.—The great Pyrenean Rockfoil, whose huge, silvery grey rosettes of leaves spread out to 8 inches or 10 inches across. In any stage this species is unique. The panicles of flowers rise to 20 inches or 2 feet high, though seedlings may take years to flower. After flowering the typical kind dies, but a variety, *S. l. prolifera*, which produces offsets, is more permanent. The flowers are white, faintly spotted with pink. June and July flowering. Deep, gritty loam, preferably rocky fissures or crevices.

S. Salomonii.—In the entire race there is not greater beauty than this, though it is not free flowering. As a silvery grey carpeter of the soil it is unique. Its flowers, which are those of a

are Faldonside and Cherrytrees, and, given pot culture, are highly desirable.

S. Paulinæ is a yellow-flowered form 3 inches high, whose good growth and free flowering promise well. It is regarded as a possible rival to the above. February and March.

S. Boydii alba, if only 2 inches high, has glistening white flowers of great beauty in February. Splendid little plants of this are occasionally shown at the Royal Horticultural Society's spring shows, and always meet with a hearty reception. Gritty loam and pot culture. Next week I hope to deal with other members of this important race.

E. H. JENKINS

(To be continued.)

Looking from the terrace towards the Italian garden, one obtains a good impression of the delicate colour tones obtained by careful planting. In the foreground is a sunk garden in shades of blue and silvery pink. A bed of blue Lavender is interspersed with pink Lilliums, surrounded by beds of standard and bush Roses and tubs of Hydrangeas, all in soft tones of pink. The low-growing plants between the chinks of paving-stones enter into perfect harmony, for these, too, are in shades of pink and blue, comprising Campanulas, Mossy Saxifragas, Sedums and Sea Pink or Thrift, while here and there a self-sown tuft of white Arabis has firmly established its right to be present. Throughout the garden flowers are grown a little

carelessly, yielding a harmonious blending of colour never to be found in a garden that is prim or too conventional.

As one wanders towards the Italian garden it needs no practised eye to tell that the garden has been designed with a view to making the best of the landscape. A small irregular clump of Cupressus guards the approach to the Italian garden, and within it is devoted to a veritable dell of Roses, in which the variety Lady Godiva is planted to form a bank on either side.

The Lavender Walk.—Perhaps the most charming feature in the late summer is the paved Lavender walk, a feature we hope to illustrate in a future issue of THE GARDEN. Bold lines of Lavender, edged with Thyme, are planted on either side of the walk, while between the paving-stones are innumerable patches of dwarf Campanulas, chiefly C. pulla and the variety Miss Willmott, with bells of silvery blue. The colour combinations of this walk in shades of blue are most pleasing.

It is in the artistic arrangement of the herbaceous borders that Lady de Bathe, who has designed the garden herself, is deserving of the highest praise. There is a long herbaceous border with a grass path leading from the Lavender walk to a little flight of steps in grass, whence one is conducted into a well-trained pleached alley of Lime trees. The flower-borders on either side of the grass path are chiefly planted in shades of blue, Anchusa italica Dropmore variety and countless numbers of Delphiniums being used most effectively. The borders and pathway are covered with arches of Roses. There is no straining after effect, but a careless beauty that compels one to admire is observed on all sides.

A "Sunset" Border.—Perhaps the most charming feature of all is a sunset border. It comprises herbaceous flowers so carefully planted as to produce those pleasing tones of colour seen in the glory of the setting sun. The effect, though novel, is a natural one, and Lady de Bathe is to be complimented on the result. The border is arranged in a sweeping curve on one side of a carriage drive. In the centre of the border are seen the warm orange tones and fiery reds produced by the free use of Gaillardias, Monarda, Montbretias and Lobelia cardinalis. The colour passes through to lighter shades created by such plants as Pentstemons and Phloxes, while beyond is the blue of the sky, obtained by Campanulas in varying heights, intermingled with Eryngiums and mauve-coloured Phloxes, passing on to cloud drifts that only Gypsophila and Statice elata could produce. The effect is pleasing in the extreme, and only an artist could have conceived such a design.

There are other features in these gardens, such as a new rock garden already planted with many alpine, and associated with a little pool where Water Plantains, Irises and Nymphæas are all freely grown.

We will bring these notes to a conclusion in referring to the loggia and sunk garden illustrated on page 450. From the loggia one looks upon a sunk garden. There is a Lily pool in the centre, where Water Lilies thrive and the stippled stems of Scirpus lacustris zebrina produce a good effect in the water. It is a paved garden, and little tufts of Saxifrages, Thymes and Sea Pink grow

between the stones. The beds in this garden are filled with Roses and Lilies, edged with the lovely mauve flowers of Viola Maggie Mott. Suspended baskets are filled with Ivy-leaved Pelargoniums and the silvery foliage of Cineraria maritima. Large earthenware vases are filled with the double-flowered Marguerite, while in the background are standard Heliotropes and large Orange trees in tubs, and pillars clothed with Roses.

THE GREENHOUSE.

THE CAPE COWSLIPS.

(LACHENALIAS.)

I WOULD like to say a word in praise of Lachenalias. I grow a house 27 feet long by 9 feet wide full of them. I call them my February flowers, for (as I grow them with but little or no heat) they are in perfection then. As is the case with so many

brick red, and some of the Lily of the Valley scented species are a curious shade of pale blue. They are easy to grow, and require similar treatment to Freesias, but they must never have much heat. Early potting is the foundation of success. To fix a date I would say before September 20. Then give but little water until they are in growth.

After the flowers are over a gradual drying off should be given, followed by a period of rest from May till August. Then the cycle begins again. A good rich porous soil suits them very well. The flowers last a long time in a fresh condition, and they make delightful little pot plants. Six bulbs in a 5-inch or seven or eight in a 6-inch pot are useful sizes. For cutting for decorating the small round dinner-tables that are so fashionable they would, I think, be much appreciated arranged with nice greenery in low vases. They last as well cut as in pots. JOSEPH JACOB.

A BEAUTIFUL GREENHOUSE CAMELLIA.

THE large, red, Pæony-like flowers of Camellia reticulata, a native of China, make it one of the most gorgeous of spring-flowering greenhouse plants, and few people who see the large plant in the Temperate House at Kew in full blossom fail to appreciate its charm. The semi-double flowers are less formal in shape than those of the various varieties of C. japonica, the petals being larger and fewer in number. C. reticulata may be easily distinguished from C. japonica by its looser habit and longer, narrower, dull leaves. As a pot plant it is not such a success as when planted in a border, for it is apt to form a rather straggling specimen, and flowers are produced less freely than is the case when more generous border culture is available.

NOTES ON GARDEN DESIGN.

THERE are few features of a garden more capable of attractive treatment than garden pavilions. The whole theory of formal gardening is that the garden itself should bear a definite architectural

relation to the house, which it encircles and adorns. It follows, therefore, that a garden-house or gazebo which is near the main building should partake of its

character, should be, in fact, an outpost which the house throws out into the garden world. The further away it is placed, the less need there is to consider this relationship and the more liberty to the designer to adopt something in a rustic manner. It is rare, however, that a summer-house built of unshaped logs, whether barked or not, is successful as a design. Refinement is a quality as valuable in the garden as elsewhere. The accompanying illustration shows an admirable little house set in the corner of a wall garden at Petersfield and rising well above it. Mr. Inigo Triggs has designed it, so that the room is approached by an outside staircase from the far side of the wall, and the undercroft makes a convenient place for the storage of garden sundries. The treatment of the pavilion in brick and half timber is simple and effective. L. W.



A GARDEN HOUSE AT PETERSFIELD DESIGNED BY MR. INIGO TRIGGS.

flowers with which one is not familiar, some will think most of them at first sight to be very much the same. So many of them are. These may well be left to the patient worker and specialist to enjoy. They can cull pleasure from the minute differences and improvements which others pass by unnoticed and uncared for. But I think those others may get a great deal of quiet enjoyment from some of the well-defined and distinct varieties, such as pendula, Nelsonii, Cawston Gem, His Reverence and Ruth Lane. Their popular English name, Cape Cowslips, suggests the prevailing colour, but here the resemblance ceases, for the little bells are not bunched up on the top of their stalks, but are arranged all round it like those of the Spanish Wood Hyacinth (Scilla campanulata). They are not, however, all of them yellow. Pendula, the Christmas-flowering Lachenalia, is a lovely

GARDENING FOR BEGINNERS.

HOW TO RAISE SWEET PEAS IN POTS.

SWEET PEA enthusiasts are placed in a similar position to cultivators of Chrysanthemums, as no sooner are the old plants cleared away than preparations must be made for raising a stock of young ones. Cultivators can, of course, raise plants from seeds sown in spring, and very satisfactory results follow when this is done. Many growers, however, prefer to raise the earliest stock towards the end of September in pots, and to put out the resultant plants in favourable weather in March or April of the following year. Certainly every lover of the popular Sweet Pea should raise some plants in pots if he possesses soil of a heavy nature, as it is a great advantage to be able to put out strong plants in such a rooting medium in spring.

The Potting Soil.—This must be quite free from wireworm or other insect pests, and be of moderate richness. Good loam of a fibrous nature which has been cut and stacked about two months should form the bulk. One peck of sweet leaf-soil to a bushel of the above and a small quantity of old manure placed in the bottom of the pots will do nicely. If the loam is of a sandy nature, sand need not be added to it; but if rather heavy, it must be mixed with the compost in sufficient quantity to render all quite porous. Use clean pots (3-inch) and select those that are deep.

Preparing Pots and Sowing Seeds.—Fig. 1: A shows how to place the clean crocks and a little rough compost and rotted manure in a pot; B depicts the space for the compost. C shows the seed buried a little more than an inch below the surface, and D the filled pots placed in an ordinary cold frame on a bed of ashes. If such frames are extra deep, put up a temporary stage on empty inverted flower-pots as shown at E. The soil when used must be in a medium state of moisture and pressed down moderately firmly. Give water

at once, but afterwards be very careful not to over-water, though it is absolutely necessary to good germination of the seeds that the soil be maintained in a consistent state of moisture. F shows a well-cared-for seedling growing freely; G depicts one that has been neglected, germinating weakly in soil that has been kept too dry. Of course, more seeds may be sown in larger pots, but it is better to confine one plant to a small pot. Fig. 2: H shows a weakly plant. Such plants may be strengthened by cutting them down as shown at I, as a young basal growth will take its place as shown at J. A well-balanced young plant is shown at K, and L depicts a plant with all the soil washed from its roots in readiness for transplanting in the flowering quarters in spring.

It is not absolutely necessary to wash away the soil, though many cultivators do this with much success. The plants may be put out with soil attached to the roots as grown in the pots. When planted, each specimen should be about nine inches apart every way in a zigzag line as shown at M.

Winter Treatment.—Sweet Pea plants must never be forced. Keep them cool, but safe from exposure to frost. The latter will not kill them, but it will sadly cripple and check the growth. Admit air in abundance when the weather is fine, and prevent the surface of the soil turning green by frequently stirring it. Do not overcrowd the plants, and maintain them in a clean, sweet condition, neatly staking any that require support. Feeding in pots is unnecessary.

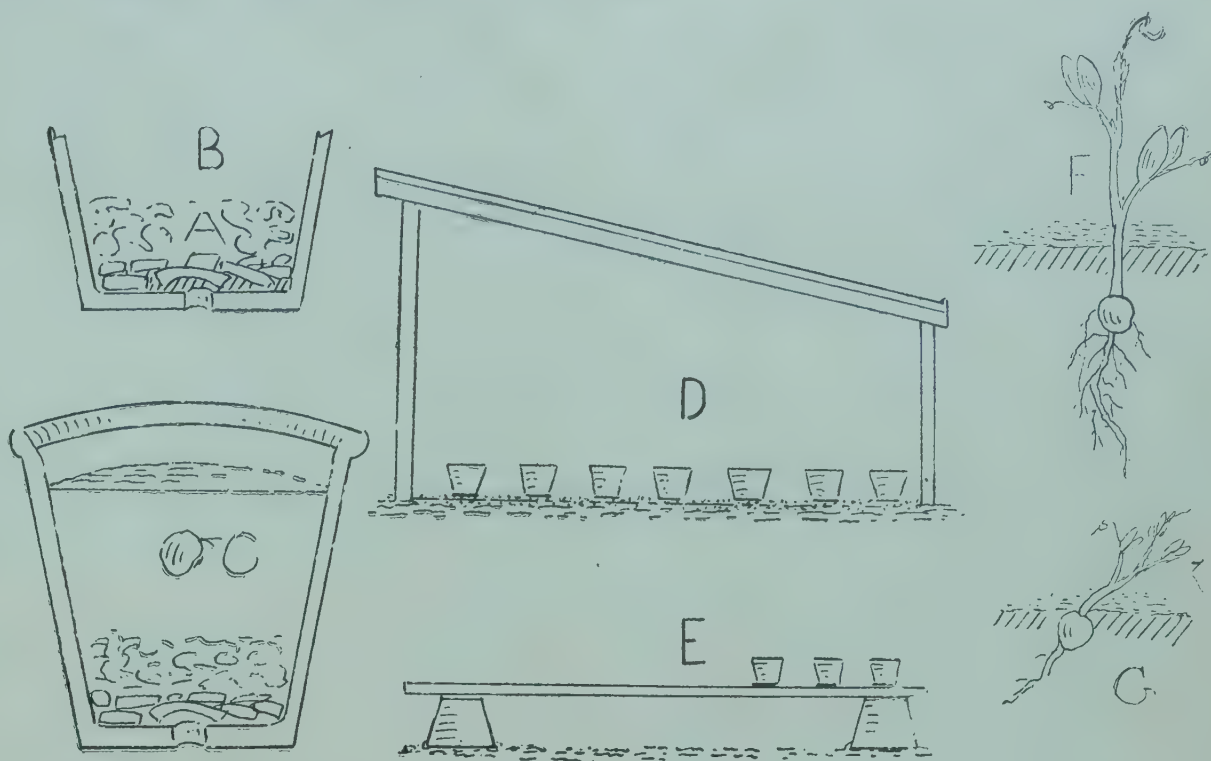
G. G.

LONDON PRIDE.

(SAXIFRAGA UMBROSA.)

It is often a very difficult matter to provide plants that will thrive in light and also heavy clayey soils in partially-shaded borders, especially in town gardens. London Pride will thrive in almost any ordinary garden soil, its foliage is ornamental, and the flower-spikes are freely produced and look very beautiful in vases. In borders where the soil is fairly rich under the shade of trees, the flower-stems grow 18 inches high and spread out in proportion. Such are grand for cutting. As edging plants to shaded borders or those in the open these plants are sure to succeed. Grown in clumps on rockeries they look charming. Every year the clumps and edgings spread considerably, though there is no difficulty in keeping the plants within proper bounds. There are now plenty of small side growths, and in some instances they have already rooted into the soil. Advantage should be taken of this to remove the side growths in question, and to transplant them either in a nursery bed or in their permanent positions. So treated they will get well established before the winter comes.

SHAMROCK.



I.—SHOWING HOW TO PREPARE THE POTS AND SOW THE SEEDS.



2.—GOOD AND BAD SEEDLINGS. WEAK PLANTS MAY BE CUT DOWN AS SHOWN AT I.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Annuals.—Where the custom of sowing seed of the many annuals for flowering early next season is practised, the present is a good time for doing so, as then the plants will attain a good size for wintering well and will give a fine effect long before those sown early in the spring of the year. The best plan is to sow in rows and thin to prevent overcrowding; then transplant to their permanent quarters. *Eschscholtzias*, *Nigellas*, *Cornflowers*, *Godetias*, *Nemophilas*, *Collinsia bicolor*, *Erysimums* and *Poppies* are a few subjects that will fill many a gap with a bright display, and vacant places in the borders when cleared may be planted with these subjects.

Bulbs.—As soon as the work of planting can be put in hand after the receipt of the bulbs the better, whether they are to be grown in the garden proper or planted for natural effects under trees or in the many parts of the pleasure grounds. Where they are grown in the garden, whether for the supply of cut flowers or no, the ground should be well worked, and the addition of some well-decayed farmyard manure and road scrapings, if the soil is heavy, will prove an advantage. In narrow borders devoted entirely to them they look splendid when in flower if planted in lines, varying the distance between the rows according to the size of the bulbs, the same governing the depth of planting. For naturalising, the addition of a little new soil will generally prove an advantage except on very fertile land, and planting may be carried out by means of a bar or spade. This work is well worth a little extra trouble, as, all being well, the effect will be noted for years.

Plants Under Glass.

Arum Lilies.—These have had a good rest now, and those that were planted out are particularly in need of potting; but unless an increase of stock is required, I prefer to rest them in their pots. If these were potted anew last year and carefully attended to, little else will be required other than a good top-dressing after having taken off as much as possible of the surface soil without doing injury to the roots. See also that the drainage is good. For potting they like a compost of good fibrous loam, not too small, leaf-mould and the addition of some bone-meal and cow-manure, with a liberal amount of coarse sand.

Ferns.—Now that these have completed their season's growth and the power of the sun's rays is waning, less shade will be necessary, and this will also make the plants much more suited to room decoration. The plants will take abundance of water, especially on hot days, and plenty of humidity should be maintained by frequently damping between the pots and the floors of the house. A little soot-water, properly diluted, will be found a good stimulant. Ferns in hanging baskets will benefit by being immersed in a pail or tank of water.

Gloxinias.—As the flowering discontinues, the amount of water should be gradually withheld from the plants, so that the drying off of the foliage takes place gradually; and to assist in the maturation the plants may be removed to a more airy position, such as a shelf in quite a cool structure. When thoroughly ripened, turn the pots on their sides and winter in a warm house, or knock out the bulbs and store them in Cocoanut fibre.

The Vegetable Garden.

Potatoes.—The lifting of the main crop will be needing attention, and, in such a season as we have experienced, the sooner this can be accomplished the better. As soon as the haulm is matured I would recommend cutting it off and removing it to the fire as a means of preventing the spreading of the disease. If possible, choose a dry day for lifting the crop. The closest watch should be kept for any tubers that show the slightest trace of disease, and the latter kept apart; also small tubers, the best of which may be selected for seed next year and placed thinly in a cool shed from which frost can be excluded. Where a quantity of edible tubers have to be stored, and there is not sufficient cold-shed accommodation, these are best placed in pits, having the base slightly above the natural level on a good layer of straw, and as

the ridge of tubers is built up, scatter a light dusting of newly-slaked lime between them.

Celery.—The weather has suited this crop remarkably well. The earliest plantings will need further papering or earthing-up, whichever practice is in vogue. Later plantings must be kept free from weeds and bad leaves, side growths removed, and a loose tie of raffia will keep the leaves intact.

Spinach.—Make another sowing of Long Standing or other approved variety for winter and spring supply. So much depends upon the weather as to the ultimate value of this vegetable; but where space permits, make one or two further sowings. Have the seed-bed level and brought down to a fine tilth, and a surface-dressing of soot and wood-ashes will be found of distinct benefit.

Fruits Under Glass.

Late Grapes.—The recent dull weather has necessitated the use of a little fire-heat to assist in the colouring and ripening of late Grapes, and though the weather has been dull, damping of the floors and borders will have been necessary, with as free a ventilation as possible; otherwise the foliage will be very susceptible to red spider. Do not be too severe in thinning the growths except with white Grapes, which need plenty of light to bring up their colour.

Young Vines.—It is highly important that the growth be thoroughly ripened of young canes; these are oftentimes apt to be over-vigorous and want to continue growth. A little warmth in the pipes and abundant ventilation whenever possible by day and night, with slightly drier conditions in the house, will help to obtain the desired results.

The Hardy Fruit Garden.

Cleansing of the Trees as the fruits are gathered should be proceeded with, and especially wall trees, which the rains have hardly touched, and the same applies to watering. Trees that have carried good crops ought not to be neglected, but rather be given the benefits of good soakings of farmyard manure, especially trained trees on walls.

The Shrubberies.

Hydrangea paniculata.—This is a good subject for flowering during the end of August and early September, and those who do not possess this plant would do well to note and plant it if a free-flowering subject is wanted at this season. The old inflorescences may be allowed to remain, and the shoots cut back before growth commences next spring.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Propagating.—Cuttings of *Calceolaria amplexicaulis* should be taken now, so that they may be rooted before winter sets in. Short pieces root more readily than long ones, and it contributes considerably to a satisfactory "strike" to never let them flag. *Abutilon* cuttings also should be taken. These should be placed in a cool stove, in which they root well enough. *Fuchsia* cuttings, too, should be inserted in boxes and placed in a cold frame, or, better still, in a manure-heated frame. Choose soft tips, which not only root better, but grow better than hard pieces.

Kochia tricophylla.—Well-grown plants which are changing colour may be planted in beds of suitable colours. They provide a change for the next six or seven weeks with little trouble. The plants should be turned out of their pots and the balls sunk deeply in the ground, so that the roots can be moistened two or three times weekly.

Single Hollyhocks.—Seeds will be ready to gather on old plants, which are the only ones that have been really satisfactory this year. Sow at once thinly in cutting-boxes and stand them in a moderate heat to ensure rapid germination. With ordinary attention to potting as required, the plants will be large enough to plant out in April or the beginning of May. Double Hollyhocks, both old ones and yearlings, are true autumnal flowers this year. Of hundreds, none will be flowering till about this date.

Pinks.—Mrs. Sinkins and others of the free-growing section may now be lifted and pulled to

pieces, planting them singly where they are to flower next year. Usually at this date the under part of the shoots is alive with young roots, which facilitate their establishment. Sweet Williams may be treated in the same way, especially the double dwarf crimson variety. If beds of the florists' section have not yet been planted, delay doing so no longer.

The Plant-Houses.

Primula obconica.—Some of the more forward plants may be placed in a warm pit to hasten flowering should they be required for decoration in October or November. A slight surface-dressing of manure will deepen the green of the leaves, which in the improved modern section are too handsome to be overlooked. It, moreover, adds depth and brilliancy to the colour of the flowers; but these stand quite three weeks, pink and deep rose being lovely in low vases.

Room Plants.—Now that fires are once again constantly on, dust will be an appreciable foe to the inside man, who usually gives himself much labour trying to wash it off the foliage of such plants as *Aspidistras*, *Aralias* and *India-rubber Plants*, not to mention the finer type of *Dracanas* and such like. Nothing excels a cloth for dusting. If used wet, the moisture should be wrung out of it, and, as it becomes dirty, rinsed in hot water and again wrung. But a dry cloth often used is best.

The Hardy Fruit Garden.

Blackberries.—This year's shoots of the Parsley-leaved variety should be placed out of the way of the fruiting shoots to permit of the fruit being gathered. Any weak shoots that obviously will not be required for another year should be cut clean out. The Japanese Wineberry is ripening, and, where birds abound, it will be essential to protect the bushes with herring-nets.

Raspberries.—These have continued fruiting for a long time, but are now over, and the bearing shoots should be cut out at once, also any weak ones that are not required, slinging up those that remain and not shortening them meanwhile.

Black Currants.—Boskoop Giant has failed so consistently that I have destroyed it, and am now substituting *Victoria*. The plants are quite ready to replace it, and will probably be planted before these notes appear, this fruit being one of the few that can safely be planted early in autumn. Carter's is perhaps as desirable a variety as *Victoria*.

The Vegetable Garden.

Cabbages.—The main batch will be quite ready to plant out in the course of next week. The plants need not be set wider than 12 inches in the rows and the latter 18 inches apart, the extra plants, should a portion be left to grow again after cutting, being drawn when ready. Those who leave the plants standing too long in the seed-bed may rest assured that the loss in earliness is very considerable, as may be proved by planting another batch a fortnight after these.

Scotch Kale.—This hardy vegetable is so useful in late spring when vegetables are scarce that spare ground may be planted closely with the surplus material still in the seed-bed. The plants will grow very little till spring, when a surface-dressing of a stimulating manure will cause them to produce nice tender leaves. The earlier batch will be ready to have some earth drawn up to the stems.

Late Peas.—Should mildew be apparent, dust the plants as completely as possible with flowers of sulphur, which must be renewed from time to time; or they may be sprayed with a fungicide, which, where there are many grown, is a laborious proceeding, and must also be repeated to be effective. If, owing to the continued wet, podding is tardy, the tops of the haulm may be cut off, which will hasten production.

Cauliflowers.—It is the custom of many gardeners to sow Early London or Erfurt at this season, choosing a spot on a warm border for the seed-bed, and later transplanting the seedlings closely together near to the base of a wall with a south aspect. The plants make practically no growth all the winter, and are again transplanted, when spring gives a new impulse to vegetation. Very fine early Cauliflowers are procured by setting five plants under an ordinary four-square hand-glass, the present time being also suitable to sow seeds for that purpose.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

NEW AND RARE PLANTS.

Cotoneaster divaricata.—This is a recent introduction from China of irregular, sub-erect habit of growth. The species bears the impress of freedom and vigour, and for bold grouping should prove most effective. The oval-shaped fruits are coloured a rich scarlet. From the Hon. Vicary Gibbs, Aldenham House, Elstree. First-class certificate.

Each of the following received an award of merit :

Dahlia Princess Louise (Collarette).—The florets are coloured an intense crimson; the small inner florets are white. The form is excellent. From Messrs. Dobbie and Co., Edinburgh.

Dahlia Antwerpia (Collarette).—A good scarlet with yellow base and yellow disc florets. From Mr. J. B. Riding, Chingford.

Dahlia Edith Carter (Cactus).—A most attractive flower from any point of view. The flower gives the impression of a rich golden yellow whose florets to half their depth had been dipped in a reddish crimson colour. It is very showy. From Mr. H. Shoesmith, Woking.

Dahlia Pegasus (Cactus).—A fancy variety whose rosy-coloured florets are touched with crimson. From Messrs. J. Stredwick and Sons, St. Leonards.

Dahlia Leopold (Single).—A fine rich crimson with golden disc.

Dahlia Marion (Single).—Rose and fawn, suffused yellow, and slight crimson zone at the base of the florets.

Dahlia Irene (Pompon).—The colour is rosy lilac, the form a model of its kind. These three were exhibited by Messrs. J. Cheal and Sons, Crawley.

The whole of the Dahlias above-named, having been adjudicated upon by a joint committee of the National Dahlia Society and the Royal Horticultural Society, carry the first-class certificate of the former and the award of merit of the latter.

Odontoglossum Helene.—An unusually dark-flowered variety of good form. Sepals and petals of reddish chocolate, suffused and veined with white. The lip is also white.

Lælio-Cattleya amabilis Borlases Variety.—The white sepals are long and narrow, the petals broad, white suffused delicate pink, lip crimson-purple, with yellow in the tube. A handsome variety.

Odontioda Euterpe.—A variety of remarkable beauty, distinction and rich colouring. Viewing the flower from behind and looking towards the light, a rich reddish wine colour is seen, while from the front a clouded vinous crimson is presented to view. The lip is of reddish tone, reticulated with white and blotched lightly with yellow. These Orchid novelties were exhibited by Mr. E. H. Davidson, Borlases, Twyford.

Angræcum o'brienianum.—A pretty, pure white flowered variety. Shown by J. S. Bergheim, Esq., Belsize Court, Hampstead.

NEW FRUITS.

Melon John Murray.—This variety is characterised by its exceptionally deep scarlet flesh, and, having been on trial at Wisley, was given the high award of a first-class certificate. From Messrs. William Rowlands and Co., Liverpool.

Apple Padnall Seedling.—An excellent cooking Apple with a certain leaning towards Warner's King, and possibly also to Potts' Seedling. Fruits

and fruiting branches were on view, an award of merit being granted on the recommendation of a sub-committee who had inspected the stock. A remarkable cropper and of good size. Exhibited by Mr. R. Roberts, Padnall Hall, Chadwell Heath.

All the foregoing plants and fruits were shown at the Royal Horticultural Society's exhibition on the 27th ult., when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

SEEDLING BORDER CARNATIONS (C. R. A.).—The colour defects to which you refer should be regarded in the light of sports, and they may or may not appear again. To some extent this reappearing or otherwise may be governed by proportion; that is to say, if an entire flower is changed, then the shoots attached thereto may, and usually do, reproduce the change. When, however, a flower is only partly transformed, anything may happen. Hence you had best consult your own desires. Calyx splitting is a fault rather than a weakness, and may be due to a badly-shaped calyx, to abnormally full-petalled flowers, or to excessive disbudding where this is done. If the calyx is of the Pear-shaped order—big at the top and narrow at the bottom—throw the plant away; it will never be any good. If long, and the present splitting is merely a slight side burst, it may have resulted from the season or from excessive vigour. In youth, seedlings put on much of this, and some of it is lost in future years. Usually, however, only the moderately long, cylindrically-formed calyces are those which remain intact. Perfect calyces are as rare as perfect flowers, and such as these rarely reach 5 per cent. of the seedlings raised by the specialists.

TIGER LILIES AND OTHER QUESTIONS (C. V. B.).—The leaf disease is doubtless that which attacks many kinds, and for which the ever-changing climatic conditions are in some measure responsible. By spraying with sulphide of potassium (half an ounce to two gallons of rain-water) once a fortnight in the early stages of growth, or, say, from when the growth is 1 foot high till the stem is fully grown, it might be kept in check, or prevented from doing any great harm. It would help matters if you collected the diseased parts and burned them. You might certainly transplant the bulbs when flowering is over, and fresh soil and a fresh site might have a beneficial effect. Now that September is here, you can transplant the Meadow-sweet and other things. We must, however, warn you as to the weed-like character of such things as Willow-herb, which is pretty enough in woodland places, though hardly a plant for the garden. You are a little impatient as to the Roses, which at least require to become established and make shoots in their new home before they are capable of giving a good account of themselves. The big rods now forming should be encouraged and retained, as upon the maturing of these a good flowering another year depends. All small, twiggy growths at the base might now be cut away.

TREES AND SHRUBS.

ESCALLONIA HYBRID (A. M., Ambleside).—The specimen of Escallonia sent for examination appears to be, as you suggest, a hybrid between E. philippiana and E. macrantha. It has much of the habit of another hybrid, E. langleyensis, but differs from that by reason of its pale-coloured flowers. We advise you to grow the plant in a good position for a year or two to test it; then if it appears to keep quite distinct and is good in habit and flowering qualities, it might be named and put into general cultivation. We do not know of a kind just like it.

SHADE TREE FOR LAWN (G. G.).—From what you tell us of your lawn, we should say that you have not room for another tree, especially one which, to be of much use, must be a fairly large-growing one. The suggestion we venture to make is that the Apple tree you mention should be removed, and a Weeping Ash or Weeping Wych Elm placed in the position it now occupies. It is not a good

plan to overcrowd a lawn with trees, for a great deal of the pleasure attached to a garden is derived from a good stretch of lawn; moreover, by crowding the grass with trees, the turf becomes weak, and in winter-time a considerable quantity of moss appears.

THE GREENHOUSE.

NORFOLK ISLAND PINE (R. S. M.).—It is quite possible to root the top of your plant of Araucaria excelsa. If you have a close and warm propagating-case, the top may be removed bodily and be inserted as a cutting; but if you have to rely on an open house or room, it would be better to do as you suggest and moss the stem round. To do this make an incision in the stem through a joint in an upward direction for 1½ inches or so. Insert a small piece of wood to keep the slit open, then cover the wound with a good bandage of moss and sand, binding it on so that there is no fear of its slipping. Keep the moss moist until roots appear through it. When well rooted remove the head and place it in a small pot in moist soil, but do not give any water for a few days. If you prefer to place a pot round the moss after the roots show, you may do so, but you will probably have a difficulty in dividing the pot in the first instance. The best way to do this is to mark the pot with a pencil, then file a ridge round. After this, a gentle tap with a hammer will break it in the required place. It may then be placed in position with the aid of stakes and string.

AURICULAS AND THE WOOLLY APHIS (J. E.).—The woolly aphis is very troublesome to growers of Auriculas, and the late Mr. James Douglas, who was unsurpassed as a cultivator of these beautiful flowers, used to advise having a pepper-box of Tobacco powder and freely sprinkling the roots, from which as much as possible of the soil had been removed. As this, however, proved ineffectual in your case, the advice of another successful cultivator may be of service. He says the best remedy against the aphis is soft soap dissolved in water. All the soil must be removed, and the roots immersed in the solution. Then they should be laid upon the palm of the left hand and well scrubbed with a soft-haired brush. Should the pests gather round the neck of the plant at a time when it would be injurious to remove the soil, this soap and water may be applied with a small brush to the infected parts. We advise you to try this on two or three of your worst plants first, and note the results before proceeding further. We question if mustard would do any good. If the old pots are to be used, it is most essential that they are thoroughly scalded beforehand, as the eggs of the pest may be adhering thereto. The soil, too, had better be sterilised.

ROSE GARDEN.

NAMES OF ROSES (C. F. F.).—No Rose-grower of any repute would have sent you Roses so glaringly inaccurate as those you send us. The white one is White Dorothy Perkins, and the two reds are Crimson Rambler and Flower of Fairfield.

ROSES FOR LAWN PLOT (Amateur, Glasgow).—You would do well to plant a few pillars in this plot, as they would tend to relieve it of flatness. Moreover, some Roses, such as Hugh Dickson, bloom more freely when trained as pillars. A few good sorts would be Hugh Dickson; J. R. Clark, Grüss an Teplitz, Zepherin Drouhin, Lina Schmidt-Michel, Sarah Bernhardt, Rosette de la Legion d'Honneur, Gustave Regis, Avoca, Lady Waterlow, Conrad F. Meyer and Nova Zembla. Some good decorative sorts to grow as bushes would be Mme. Abel Chatenay, Mme. Ravary, Caroline Testout, Edu Meyer, Harry Kirk, Antoine Rivoire, General Macarthur, Gustav Grunerwald, Prince de Bulgarie, Lady Ashtown, Mme. Jules Grolez, Joseph Hill, Mme. Leon Pain, Pharisier, Countess of Derby, Duchess of Wellington, Mrs. Alfred Tate, Killarney, Lady Battersea, James Coey, Laurent Carle, Mrs. Aaron Ward, Mrs. A. R. Waddell and Viscountess Folkestone.

MISCELLANEOUS.

WEEDS IN POND (C. J. S.).—Copper sulphate may be used at the rate of 2½ oz. to 10,000 gallons of water for killing weeds in ponds, although it is often used in slightly lower proportions; 2oz. to 10,000 gallons has been found satisfactory when the weed has not been very thick. As an instance of how the amount may be varied, some authorities recommend using one part of copper sulphate to from 750,000 to 1,000,000 parts of water. We have known the above proportions used for several years without ill-effect.

TO CLEAR THE SCUM OFF THE SURFACE OF A POND (Perplexed).—If, as you say, the scum on your pond appears to be of a dusty character, we imagine that the water is stagnant. By causing it to be disturbed, such as would be the case by letting the water run through rather rapidly, the scum ought to be cleared away. We presume that the water is constantly flowing into and out of the pond. In the event of the scum being of a vegetable nature, you cannot do better than introduce copper sulphate at the rate of 2oz. to 2½ oz. to 10,000 gallons of water. Tie the copper sulphate in a canvas bag and draw it through the water till dissolved.

NAMES OF FRUIT.—T. S.—1, Warner's King; 2, Round Winter Nonsuch; 3, Adam's Pearmain; 4 and 11, Tower of Glamis; 5, Ecklinville Seedling; 6, Old Hawthornden; 7, Gold Medal; 8, Annie Elizabeth; 9, Fearn's Pippin; 10, Beauty of Kent; 12, Mank's Codlin; 13, Worcester Pearmain; 14, Striped Beaufin; 15, Yorkshire Beauty; 16 and 20, Pickering's Seedling; 17 and 21, Blenheim Orange; 18, Mère du Ménage; 19, King of the Pippins; 22 and 23, Lord Suffield.—T. H. O. Pease.

1, Keswick Codlin; 2, Devonshire Quarrenden; 3, Beauty of Bath; 4, Lord Grosvenor; 5, Flanders Pippin; 6, Cat's-head; 7, Mère du Ménéage.—*E. Martin*.—1, Margil; 2, White Must.

NAMES OF PLANTS.—*M. M. P.*—Phloxes: Scarlet and white, Flambeau; mauve and white, Eugénie Danzanvilliers; deep mauve, Le Mahdi; pink and white, Elizabeth Campbell; pink with red centre, Selma. The other plant is *Lupinus polyphyllus roseus*. In future, when sending plants for naming, please attach numbers to the specimens.

—*Farmer*.—*Lychnis chalcidonica*.—*H. S. C.*—Rose Francois Foucard.—*P. H.*—1, *Linaria pilosa*; 2, *Aubrietia deltoidea* variety; 3, *Sedum* species, send in flower; 4, *Sedum asiaticum*; 5, *Spiraea Aruncus* (Goat's Beard); 6, *Thalictrum minus*; 7, send in flower; 8, *Pulmonaria officinalis* (common Lungwort); 9, *Veronica virginica rosea*.—*A. Midgley*.—Apparently *Polygonum viviparum* (Alpine Bistort).—*John Turner*.—1, *Populus canescens* (Gray Poplar); 2, *Aesculus flava* (Sweet Buckeye).—*Woodman*.—1, *Eucryphia pinnata*; 2, *Lythrum Salicaria* (Loosestrife).

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

DESPITE the abnormal wetness of the season, a display of much excellence was brought together on the 27th ult. Hardy flowers were, indeed, finer than could have been expected, the Dahlias, if not as yet in characteristic beauty, being of much merit. The outstanding features of the meeting, however, were the collections of pot-grown fruit trees. Here, indeed, was food for the eye and the mind, and, anon, it may be for the body also. To the gardener and visitor such exhibits are an education, and are welcomed accordingly. They were, indeed, magnificent of their kind.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Druery, J. Green, George Gordon, W. J. Bean, G. Reuthe, W. Bain, John Dickson, Charles Dixon, H. J. Jones, J. T. Bennett-Poe, Charles E. Pearson, W. P. Thomson, G. Paul, W. J. James, E. A. Bowles, R. C. Notcutt, F. Herbert Chapman, C. Blick and E. H. Jenkins.

Messrs. James Veitch and Sons, Limited, Chelsea, displayed a highly-interesting table of greenhouse flowering plants, inclusive of distinctive groups of *Streptocarpus* in white, rose, blue, pink and violet shades in plants seven months old from seeds; the pretty *Browallia viscosa*, flowering trails of *Passiflora princeps* and *Schubertia grandiflora* (scarlet and white flowered respectively), a delightful colony of the hybrid *Javanico-jasminiflora* *Rhododendrons*, *Browallia speciosa* major, a handsome group of *Cannas* in rich and varied colouring, together with an interesting lot of *Begonias*, of which *B. Froebelii incomparabilis*, with crimson scarlet flowers and woolly petioles and buds, was very striking. This low-habited, free-flowering plant is among the most ornamental we have seen. *B. Lucerna*, with drooping tresses of pink flowers and white-freckled leaves, was also in good form.

A small group of Perpetual-flowering Carnations came from Messrs. Harbutt, Humberstone Gate, Leicester, Mikado and May Day being among the varieties shown.

Messrs. Piper, Bayswater and Barnes, arranged amid stately Palms a fine lot of *Lilium speciosum cruentum* and other richly-coloured varieties, the plants well grown and flowered. *Asparagus Sprengeri* constituted a good margin. Some nice examples of *Wahlenbergia vincaeflora* also came from this firm.

The Misses Hopkins, Shepperton-on-Thames, had a pretty rockwork exhibit, arranging *Sedums*, *Campanulas*, *Potentillas*, *Linarias* and *Viola* species effectively among the rocks.

Mr. Amos Perry, Enfield, had a fine display of Delphiniums, the product of spring-planted stock, which as a succession to the main flowering is of much value. Mrs. Creighton, purple; Lizzie, sky blue, white eye; King of Delphiniums, an ever-popular variety; Duke of Connaught, dark blue single, with conspicuous white eye; Perfection, rosy lavender, with outer petals pale blue, very fine; and Amos Perry, rosy mauve and dark blue, a most showy variety, were among the best in a really grand lot. Persimmon, sky blue, white eye, is also a notable single-flowered sort.

Messrs. William Fells and Son, Hitchin, arranged a table of hardy plants, such as alpines in pots, cut herbaceous subjects of the bolder types, together with a small sandstone rockery whereon were planted *Campanulas*, *Linarias*, *Lysimachia Henryi*, *Dianthi* and the like, while at each end was seen a collection of *Violas* and *Pansies* set in tubes.

Mr. James Box, Lindfield, Sussex, had a superb and showy lot of hardy cut flowers, the herbaceous Phloxes being exceptionally fine. Widar, mauve blue and white; Gloire du Marc, reddish purple; Iris, deep violet; Le Mahdi, deep mauve; General Van Hentsz, salmony scarlet, white eye, very fine; and Selma, pink, were some of the best in a superb lot. Gladioli, herbaceous Lobelias, Kniphofias and *Artemisia lactiflora* were all well displayed.

Messrs. William Cutbush and Sons, Highgate, N., had a capital exhibit of hardy plants in conjunction with Water Lilies and other plants. The Pentstemons were particularly fine and made a big show. Gladioli *Hollandia* (a fine blush pink), with masses of Kniphofias, Gaillardias, Phloxes and Heleniums were all good and showy. *Polygonum cymosum album*, *Stenanthium robustum*, *Crinum Powellii* and *C. P. album* were other important items in a fine group.

Mr. W. A. Gwillim, Sidcup, Kent, had a superb lot of *Begonia* flowers on boards, and splendid pot-grown examples to boot, the magnificent double flowers of the

latter being of unusual size and fine form. A collection of herbaceous plants was also arranged by this firm.

Messrs. Dobbie and Co., Edinburgh, showed a particularly fine lot of the Collarette Dahlias, some five dozen stands and vases being arranged with admirable taste and skill. Among the more striking were Queen Bess, reddish mahogany and gold; Meteor, crimson and gold; Exposition de Lyon, ruby red and creamy inner florets; Balmoral, reddish violet and white; Princess Louise, crimson guard petals, inner ones primrose; Frogmore, scarlet and gold; Antwerpia, crimson-scarlet and yellow; and Mme. Poirier, violet blue, with white inner florets. These made a very showy group.

Mr. L. R. Russell, Richmond, arranged what was virtually an avenue of *Celosias* to an accompaniment of *Begonias* of the Rex section, the latter being exceptionally well-grown specimens. The *Celosias* were pot-grown examples, and were in groups of crimson, ruby, yellow and pale orange, the whole making a showy display. A background of variegated *Eulalia* played its part uncommonly well.

Mr. G. Reuthe, Keston, Kent, had another of his varied and interesting groups of alpines and shrubs, which never fail to attract. *Erica vulgaris* Foxii (quite a miniature), *E. v. flore pleno* (a charming plant), *Linarias* in variety and *L. alpina rosea* were most charming. *Silene Elizabethæ*, *Tunica Saxifraga fl.-pl.*, *Viola bosniaca*, *Crinum Powellii* and *Desfontainea spinosa* were among the more attractive on this occasion. Some good pans of autumn *Cyclamen* were also noted.

Mr. Ernest Dixon, Putney and Roehampton, had a small group of showy herbaceous things, such as Phloxes, Pentstemons, Lupines, Delphiniums and the like. *Viola cornuta atropurpurea* was also well shown.

Clerodendron carulea is a pretty and uncommon blue-flowered climbing species exhibited by Sir Trevor Lawrence, Bart., Dorking, the plant also being known, we believe, as *C. ugandense*. It is as charming as it is interesting.

Mr. J. Hudson, gardener to Mr. Leopold de Rothschild, Gunnersbury House, showed in tubs some superb examples of blue-flowered Water Lilies, *Nymphaea gigantea* variety *hudsoniana* being magnificent. The giant deep lavender blue flowers were 8 inches in diameter. *N. pulcherrima* and *N. stellata* Berlin variety were both of great beauty and merit, if lacking the fine colour and handsome proportions of that first-named.

Mr. Reginald R. Cory, Duffryn, Cardiff, exhibited Dahlias of several sections, Pompon, Collarette, Pæony and others. The flowers were well displayed in stands.

The Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. Beckett), had a remarkable exhibit of cut *Buddleia* sprays in some dozen or more sorts. *B. variabilis* *magnifica*, *B. v. rosea*, *B. v. gigantea*, *B. v. Delight* and *B. nivea* were the more distinct.

Messrs. J. Cheal and Sons, Crawley, had a charming lot of Dahlias, particularly of single-flowered varieties, Brilliant, Glencoe, Rosebank Scarlet, Betty, Mrs. Miller, Elmira and Kitty being noted in a good lot. Pæony and *Cactus* flowered sorts were also well shown.

Messrs. H. Cannell and Sons, Swanley, had a large variety of *Cactus*, decorative and other Dahlias, The Bride, Harold Pearman (yellow), Mrs. Douglas Flemming (white) and J. H. Jackson being all good *Cactus* varieties. In the giant single-flowered class, Cannell's Favourite (crimson and gold) and White Cloud (very handsome and pure) were the best. Collarette Dahlias and a handsome lot of double *Begonias* were also shown. A dozen flowering plants of *Crassula falcata* contributed to a fine display.

Messrs. H. B. May and Sons, Edmonton, exhibited Ferns, together with *Ixoras* and the brilliantly-coloured *Croton edmontoniense*. *Nephrolepis Marshallii* compacta was in excellent form.

Messrs. G. Bunyard and Co., Maidstone, had a very showy exhibit of hardy plants, though chiefly of Delphiniums, Pentstemons, hardy Fuchsias, Scabiosa and the like. *Crinum Powellii* and *C. P. intermedia* were also noted, while King of Delphiniums and the blue, white-eyed *D. Nerissa* were both seen in nice groups. The many varieties of the Japanese *Anemone* were all well shown.

Messrs. William Wells and Co., Mersham, brought a capital display of Phloxes, such as Le Mahdi, King Edward (reddish), Rose Queen and Arthur Rane (pink) being very fine. *Veronica subsessilis* and *Senecio clivorum* were both in excellent condition.

FRUIT AND VEGETABLE COMMITTEE.

Present: G. Bunyard, Esq. (chairman), and Messrs. A. H. Pearson, W. Poupert, John Harrison, Owen Thomas, James Vert, Joseph Davis, George Kelf, A. R. Allan, W. E. Humphreys, J. Willard, E. Beckett, G. Woodward and J. Cheal.

From Messrs. James Veitch and Sons, Limited, Chelsea, came a magnificent collection of pot-grown fruit trees, Pears, Apples, Plums and the like, to the extent of some one hundred and seventeen varieties in trained, standard and pyramidal examples. For such exhibits as these, educational as they are in the highest degree, no praise is too great; hence we extend our meed of it without reserve. From the cultural standpoint alone such an exhibit, varied and complete as it undoubtedly was, merited high praise by reason of the perfection attained, while from the standpoints of extent and comprehensiveness such magnificent collections are only possible to a few. In so representative a group we can only hope to give a selection. Of dessert Apples, Duchess' Favourite, Charles Ross, Christmas Pearmain, Langley Pippin, Worcester Pearmain and James Grieve were the best; while of culinary Apples, Bismarck, Alexander (very handsome-looking), Cox's Pomona, Lane's Prince Albert, Warner's King, Stirling Castle and Peasgood's Nonsuch claimed attention. Of Pears, Beurré Bosc, Beurré d'Amanlis, Clapp's Favourite, Dr. Jules Guyot, Louis Bonne of Jersey and Pitmaston

Duchess were of special merit; while of Plums we noted such excellent sorts as Coe's Golden Drop, Bullace The Langley, Jefferson, Reine Claude du Comte Hathem, Grand Duke and Lawson's Golden Gage. The comparatively small pots and trees, loaded with fine fruits, were a great tribute to the cultural skill demonstrated as a whole. This unique exhibit was deservedly awarded the Hogg gold medal, the top rung of the fruit-tree ladder.

Messrs. G. Bunyard and Co., Maidstone, also displayed a remarkable and varied exhibit of orchard-house-grown fruit trees in pots, in conjunction with hardy fruits of a varied character, into which a dozen varieties of Cob Nuts and Filberts and a similar lot of ornamental Crabs entered. The pot-grown fruit trees, however, were those which attracted most attention, and here we saw superbly-grown examples of Plum, Pear and Apple as good as could be imagined or desired. Apple trees loaded with Allington Pippin were superbly finished, while such as Wealthy, Gascoyne's Scarlet (of rich colouring), Peasgood's Nonsuch, Cox's Orange Pippin, Baumann's Red Winter Reinette and Emperor Alexander were in every way excellent. Small trees of the good culinary Apple Rev. W. Wilks displayed the free-cropping attributes to advantage. Pears were also in good variety, while Plums were represented by such as Monarch, Coe's Golden Drop, President and others. In addition to these, a large collection of gathered fruits was shown of rare quality. A gold medal was deservedly awarded for this collection.

Mr. G. Kelf, gardener to the Hon. Mrs. Merry, Danesbury Park, Welwyn, Herts, brought a collection of about eighteen varieties of Plums in boxes, grown in the open air. The collection embraced all the best-known varieties, as Kirke's Monarch, President, Coe's Golden Drop, Jefferson, Pond's Seedling and others.

An assortment of Runner Beans and culinary Peas was contributed by the Rev. Chalmers Hunt, Hitchin, while from the Countess of Ilchester, Holland House, came some eighteen or so varieties of ornamental Crabs.

Messrs. Stuart Low and Co., Enfield, staged a collection of pot-grown Figs, Apples and Grapes in capital condition, while Carrots of a model type, without spot or blemish, in both long and short horn varieties, came from Mr. Z. Gray, Sandy.

Messrs. Cannell and Sons, Swanley, had large representative collections of gathered fruits, Apples, Pears and Plums being well shown. Of the last-named we noted such as Washington, Jefferson, Goliath, Kirke's Blue, Rivers' Late Orange, Cox's Emperor and Prince Englebert, all in capital form.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Sir Jeremiah Colman, Sir Harry J. Veitch, and Messrs. J. O'Brien, W. Bolton, Gurney Wilson, de B. Crawshay, Arthur Dye, H. G. Alexander, J. E. Shill, W. H. Thatcher, Walter Cobb, A. H. McBean, T. Armstrong, F. J. Hanbury, Stuart H. Low and R. A. Rolfe.

Messrs. Sander, St. Albans, had a very beautiful lot of *Cattleyas* and *Laelio-Cattleyas* in variety, also such good things as *Burlingtonia fragrans*, *Cypripedium Rossettii*, *Disa grandiflora*, *Cattleya Suavior alba* (very pure and good) and the strange-looking *Catasetum maculatum*. *Laelio-Cattleya* Walter Gott was also noted among distinct things.

Mr. H. Pitt, Rosslyn, Stamford Hill, had in a most interesting lot *Cattleya Source d'Or* (choice and distinct in colour), *Odontioda Charlesworthii*, *Epidendrum Wallisii*, *Catasetum fimbriatum* (very quaint-looking) and the lovely white, yellow-tipped *Laelio-Cattleya Delicata*.

Messrs. Charlesworth and Co., Hayward's Heath, included in a small yet choice lot *Aerides Lawrenceae* var. *sanderiana*, *Cattleya gaskelliana*, *Houlletia Wallisii* and *Lelia macrostachya*. *Polycypris muscifera* was also remarkable for its fairy-like bronzy flowers and elegant grace.

Mr. E. H. Davidson, Borlases, Twyford, had a delightful lot of *Laelio-Cattleyas*, *Cattleyas*, *Odontiodas* and *Odontoglossums* in pleasing variety. This exhibitor secured three awards of merit for his leading novelties. *Odontioda Euterpe* in this collection was singularly rich in colour.

Messrs. J. A. and A. McBean, Cooksbridge, Sussex, had a rather handsome plant in flower of *Vanda sanderiana*, which, with richly-coloured *Odontiodas* and *Odontoglossums*, were very attractive.

Messrs. Stuart Low and Co., Enfield, had a fine example of *Lelia crispata*, together with *Oncidium varicosum* Rogersii, *Odontiodas* and others. Some good examples of *Dendrobium Phalanopsis* were also noted.

ABERDEEN HORTICULTURAL SOCIETY'S SHOW.

THE great three days' show of this society took place in the Duthie Park, Aberdeen, on August 22, 23 and 24, and was one of the best yet held, although the lateness of the season has told on certain exhibits. The entries were practically the same as in former years, and the exhibits did full credit to such an important horticultural centre as Aberdeen. It is impossible in the space available to do justice to the show, but it may be said that pot plants were very fine in every way; that cut flowers were, as a rule, very good, Roses and Sweet Peas being perhaps the strongest classes. Fruit was good, and in some classes of superb quality, while vegetables were an outstanding section. In the professional classes Mr. W. Dick, Mr. J. Elder, Mr. A. Brebner, Mr. J. W. Brechin, Mr. J. Petrie, Mr. J. Burnett, Mr. A. Gillespie and Mr. J. Anderson were the chief winners with pot plants. For cut flowers Mr. A. Brebner led for eighteen Rose blooms, distinct; Mr. J. Barnett for twelve; Mr. J. Petrie for six bunches of decorative; and Mr. W. Lockhart for twelve Teas or Noisettes. Mr. A. Douglas was first for herbaceous plants.

Mr. J. Petrie led for Sweet Peas, and other leading classes were headed by Mr. J. M. Dunn, Mr. W. Lockhart, Mr. J. W. Brechin, Mr. A. Cumming, Mr. J. D. Smith, Mr. J. Garden, Mr. J. Grieve and Mr. A. Douglas. For Grapes, Mr. R. A. Grigor and Mr. J. Petrie led, and winners in other classes included Mr. W. Harper and Mr. G. Taylor for collections, Mr. J. Patterson, Mr. J. Ferguson, Mr. W. Scorgie, Mr. J. E. Davies and Mr. John A. Grigor. Mr. R. A. Grigor was first for the collection of vegetables, Messrs. J. and D. McKenzie winning in the other collection class. In the nurserymen's section Messrs. J. Cocker and Son were first for thirty-six Roses; second, Messrs. Adam and Craigmile. A number of non-competitive exhibits from local and other firms added much to the value of the show, and we regret that space cannot be spared for a description of these.

URMSTON AND DISTRICT SHOW.

The first annual show of the Urmston and District Horticultural Society was held on the 17th ult., and so far as the number and quality of the exhibits were concerned, was encouraging. There was an aggregate of about four hundred entries in the horticultural classes, including those in the garden competitions, while 240 entries were received in the poultry section, which was a successful branch of the show, and several hundred plants were brought for adjudication upon in connection with the school children's competitions. Over one hundred pounds, including silver cups, gold and silver medals in the open classes, was offered in prizes. The judges of the horticultural exhibits were Mr. J. Crossling, F.R.H.S., Penarth, and Mr. Penn, Stockport. The president, Councillor William Wright, gave a luncheon, to which most of the vice-presidents and others were invited, a large company sitting down in a reserved tent.

OPEN CLASSES.

The show was divided into five sections. In the open section Roses and Sweet Peas formed strong classes. In that for eighteen Roses, distinct, Mr. C. Burgess had an exceptionally good display, which was awarded the society's silver cup, value £5 5s., the gold medal going to Mr. P. Wilkinson and the silver medal to Mr. A. Bent. Mr. Burgess was also successful in winning the second cup of the same value for twelve vases of distinct Sweet Peas, the gold and silver medals going to Mr. F. Robinson and Mrs. Wrigg respectively. The show of both Roses and Sweet Peas was very fine, the quality of the blooms being excellent. The society's gold medal for a trade exhibit was carried off by Mr. W. J. Garner, Altrincham, with a magnificent display of cut flowers and plants effectively arranged. Mr. J. Langford, Withington, secured the silver medal. A special gold medal to Mr. S. Yates for his excellent display, and silver medals to Messrs. Caldwell and Sons, Knutsford; Mr. W. Pritchard, Flixton; and Mr. E. Fielding were awarded.

AYR SHOW.

THIS society's show was held in the Dam Park Pavilion, Ayr, on August 22, and proved a highly-successful one. The entries showed an increase of about a hundred over those of last year, and the exhibits attained a high level of merit in all the departments. Pot plants, cut flowers, fruit and vegetables alike were good. Special features were the dinner-table decorations, in which Mr. W. Currie, Glenfairn Gardens, won the first prize with a tasteful scheme. In the open classes Messrs. T. Smith and Sons, Stranraer, secured the prizes for forty-eight and twelve Roses with good blooms for the season. Mr. M. Ganly, Glendoon Gardens, was first for table plants. Messrs. G. Mair and Sons, Prestwick, were awarded first prizes for twelve spikes of Gladioli and ten vases of Sweet Peas. Mr. D. Buchanan, Bargany Gardens, was first for the collection of fruit, and Mr. T. Anderson, Darvel, for the collection of vegetables. Mr. M. Ganly secured the first prizes in the other open classes. In the section for gardeners and amateurs, Mr. Ganly was again the leading winner, his prizes including that for the table of plants, besides the bulk of the others. Mr. W. Miller, sen., and Mr. J. Jamie were among the first prize takers. With cut flowers Mr. A. Campbell, Mr. W. Strath, Mr. G. Hutton, Mr. J. Dunlop, Mr. W. Wilson, Mr. W. Currie, Mr. M. Ganly and others took the first places. In fruit Mr. D. Buchanan, Mr. W. Currie, Mr. R. Blair, Mr. R. J. Clark, Mr. A. Noble and Mr. T. Shiels were the most successful; and in vegetables Mr. Noble, Mr. T. Anderson, Mr. R. Blair, Mr. W. W. Manson, Mr. J. Dunlop and Mr. A. Campbell were the leaders. Messrs. Dobbie and Co., Edinburgh; Messrs. T. Smith and Son; Mr. T. Smith, Newry; Mr. T. Bryden, Ayr; Mr. R. Fleming, Helensburgh; and Howat's Stores, Ayr, had capital honorary exhibits.

NATIONAL HARDY PLANT SOCIETY.

SECOND ANNUAL CONFERENCE.

THE second annual conference of the above society was held at the George Hotel, Shrewsbury, on Thursday, August 22. Mr. W. H. Paine presided over a large attendance. A letter was read from the chairman, Mr. A. J. Maclell, regretting his inability to be present. Mr. T. W. Sanders, F.L.S., gave a most interesting paper on "Are Flower Shows Advancing Hardy Plant Culture as They Might and Ought to Do?" in which he came to the conclusion that horticultural societies and flower shows were not doing justice to hardy plants, and that substantial prizes should be offered to the trade, professional and amateur growers. Mr. G. Gibson, while agreeing with most of the suggestions, thought that with regard to the colour-scheme there would be a difficulty in carrying it out, owing to the limited number of colours available

in one month or at one time. Mr. J. Harkness thought that the difficulty as to a colour-scheme could be surmounted. There was never more interest than now in hardy flowers. The schedules should be absolutely definite, and in the big classes he thought the money should be pooled and allotted to all the exhibitors by points. Culture should be first, decoration second. Mr. Edginton thought that the large classes of hardy plants were badly defined, and as framed it was impossible to stage on 300 feet for natural effect. He criticised the wording and judging of several classes at recent shows, and instanced as examples of natural effect *Gladiolus America* in May and *Lilium umbellatum* cut down to 6 inches in height. He thought that rock gardens would be more natural with 600 square feet and two facings than the same number of plants at present crowded into 300 feet. Backgrounds of Bamboos should be discarded. Mr. T. R. Hayes agreed with the lecturer, and also endorsed Mr. Edginton's remarks. He thought that the society should communicate with the Shrewsbury committee as to more clearly defining their group class, while recognising the start that had been made. On the proposition of Mr. Bouskell, seconded by Mr. Gibson, a hearty vote of thanks was accorded the lecturer for coming from Aberystwyth to give his paper. Mr. Sanders, in reply, said that the discussion had justified his title. He should like to see a class for hardy Orchids at the Temple Show, and classes for *Veronicas*, *Primulas*, &c., at other shows.

The following awards to new plants were made.
Erica cinerea atrococcinea.—From Messrs. Hayes, Keswick. Award of merit.
Bidens dahlioides.—A fine introduction with pink flowers; very similar to *Cosmos*. Quite hardy at Sheffield. From Messrs. Artindale. Award of merit.
Gaillardia sps. Mackellar.—Very fine habit, large flowers, yellow petals, with carmine base. From Messrs. Harkness, Bedale. Award of merit.
Primula jaredica autumnale.—A new local race from Japan, flowering in the autumn. Robust habit and fine flower-trusses. From the Tully Nursery, Kildare. Award of merit.
Lobelia Glory of St. Ann's.—From the Tully Nursery. Award of merit.
Lobelia Glow.—From the Tully Nursery. Award of merit.

Lobelia W. H. Paine was exhibited and considered the finest recent introduction. As only one spike was exhibited, the council asked for it to be staged again. Messrs. Kelway exhibited some fine spikes of *Delphiniums* (second bloom), which the council desired to see again.

Thalictrum dipterocarpum (which was introduced by Messrs. Veitch) was exhibited and received an award of merit.

There was a discussion on the herbaceous species of the genus *Veronica*, about fifty species and varieties being exhibited. The confusion as to the genus was pointed out by Messrs. Bouskell and Paine, who had made a list of every species exhibited at the show, many of which appeared under several names and many under wrong names. It was resolved that Messrs. Sanders, Paine and Irving, with the hon. secretary, be appointed a committee to correspond and report at a future meeting. The hon. secretary, Mr. Frank Bouskell, Market Bosworth, Nuneaton, will be glad to receive specimens of any species or varieties, or preferably a small plant, to bring before the committee.

UNIQUE SHOW AT BIRMINGHAM.

MODERN-DAY competition causes all good, enterprising firms to seek novel ways of keeping their name before the public. In organising a show specially for their customers, Messrs. Robinson Brothers, Limited, of West Bromwich are to be congratulated on the thoroughness with which they carried out the details of organisation for holding a flower, fruit and vegetable show at the Botanic Gardens, Birmingham, on the 28th and 29th ult. The show was well arranged, and great credit is due no doubt to some ruling spirits who have dealt with such matters before.

Roses were really excellent for the season, Messrs. Perkins and Sons, Coventry, putting up a charmingly well arranged group of most popular sorts, and worthy of the gold medal awarded. Mr. J. Mattock had an excellent lot, very well arranged, in good variety, for which a silver-gilt medal was awarded. If good prizes could be given at shows for groups of Roses occupying a given space, it would become a very popular class. It gives the exhibitor a chance of showing the suitability of many sorts of Roses for grouping that cannot be shown in other classes. The six bunches, distinct, in vases not exceeding 4 inches in diameter were excellent, and can be made very effective. Messrs. Mattock, Perkins and Frettingham came in here in the order named with capital examples. Bowls of Roses were equally good, Messrs. Perkins putting up a very light and effective arrangement. Mr. Mattock had a very pretty combination with *Lady Pirrie* and *Irish Elegance*, the colours blending beautifully. Good use was made all through of sprays and leaves of *Rosa rubrifolia*. In the classes for forty-eight and eighteen, some very fresh, clean flowers were shown, and for the season and time of year it was a good competition, Messrs. Perkins, Mattock, Frettingham and Dennison following with prizes in this order. Some very good flowers were shown in the amateur classes also.

A fine non-competitive group of Tree Carnations was put up by Messrs. Young and Sons of Cheltenham, representing most of the popular varieties. A gold medal was awarded to this excellent exhibit. In the class for Tree Carnations no entry was made, and in the class for border varieties there was only one entry; this was from Messrs. Campbell of Blantyre.

Table decorations were really first-rate, eighteen competitors putting up beautiful examples of a most varied character, all good, but *Gloriosa superba*, with *Oncidium*, *Lycopodium*, &c., took the lead, followed closely by *Rose Irish Elegance*. The prizes were good, well competed for, and, being in a tent by themselves, made a very attractive feature, which was well patronised.

An excellent class was introduced for a collection of border flowers, representing as nearly as possible a border of growing plants on a ground space 20 feet by 8 feet. Six entries had been made, but only three were staged. The previous wet days had spoilt many good outside flowers in some districts. The three groups staged made an excellent show and contained many good things. We do not approve of tall-growing plants being cut down to apparently help the colour-scheme and should this be prevented in the wording of schedules that may wish to encourage exhibiting in this way, which we consider an excellent and proper way of conveying to visitors a correct idea of what a plant is most suitable for in the garden. Mr. Bouskell of Market Bosworth was a good first, Messrs. Gibson and Co., Bedale, second; and Mr. J. H. Marsden, Malvern Link, third.

Twelve bunches of herbaceous flowers, distinct, in vases 4 inches in diameter, brought five good collections. Restricting the size of vase is a most excellent idea; it gives all an equal chance, and will prevent huge buckets and vessels being used by some which cannot be entertained by others as being too costly in many ways, and may encourage exhibitors to select carefully and arrange naturally. Mr. Frank Bouskell came in again first; Mr. Bastock, Acock's Green, second; and Mr. Bland of Market Harborough a good third.

Annuals were also shown in vases not exceeding 4 inches in diameter. These made quite a pretty show, of great interest to those with small gardens. These flowers should always be properly and correctly named.

Early *Chrysanthemums* were fairly well shown, but the flowers seemed to lack substance, flagging in a very short time after being staged. Messrs. Woolman and Son, Shirley, were a good first, their *Mercedes* and *Golden Glow* being very good. The second prize exhibit came from Leicester and the third from Glasgow. We did not consider them at all a happy lot.

Cactus Dahlias were very bright and well shown, Messrs. Keynes, Williams and Co., Salisbury, Messrs. Woolman and Son, Shirley, and Mr. Bowness of Glasgow taking the prizes in the order named.

The fruit classes were fairly well contested, the Duke of Portland (gardener, Mr. Gibson) taking all the best prizes. In the class for a decorated table 8 feet by 4 feet, with a grand lot of fruit and nicely-arranged flowers he came in first, very closely followed by the Marquis of Northampton (gardener, Mr. A. R. Searle). The floral part in this exhibit was the weakest, but the fruit was excellent. The other lot shown was much below the average. Some excellent Muscat Grapes were exhibited, Madresfield Court being splendid and Prince of Wales well coloured. Some fine specimen Apples and Pears were exhibited for the first and second prizes.

The exhibits of vegetables were much above the average in quality and quantity. All the classes were well competed. The great prize for a collection of twelve distinct kinds was well won by the Duke of Portland (gardener, Mr. Gibson) with magnificent examples, followed closely by the second, third and fourth. Prizes for 12lb. of Tomatoes packed for market brought splendid competition, and various systems were represented from different parts of the country as far north as Scotland. The even-graded examples packed solidly and regularly received highest recognition. Many other lots of vegetables were shown in collections and separate kinds round one of the tents, all being of splendid quality and finish.

ROYAL HORTICULTURAL SOCIETY OF IRELAND.

AUTUMN SHOW.

ON August 27 the above society held its autumn show in the beautiful grounds adjoining Lord Iveagh's mansion at Stephens Green. The quality of the various exhibits was in most cases fully up to the high standard of excellence which one expects to meet at this exhibition. The trade exhibits were very fine. Notable exhibits of Gladioli were staged by Messrs. Hogg and Robertson, Dublin, and Messrs. Jones, Kilkenny. Messrs. Jones were awarded a gold medal for Gladioli, and Messrs. Hogg and Robertson a silver medal. Roses from Messrs. Alexander Dickson and Sons, Newtownards and Dublin, were very fine. This firm secured the first prize for a stand of twelve new Roses. Messrs. Hugh Dickson, Royal Nurseries, Belfast, staged some really magnificent Roses, and were first in the class for seventy-two blooms, winning the society's silver-gilt medal in addition to the first prize. Charles de Lapsse, Marquise de Gany, Hugh Dickson and the Lyon Rose were notable varieties in this exhibit. A fine collection of hardy shrubs, flowers and plants was staged by Messrs. Drummond and Sons of Dublin. In this collection some of the newer varieties of Water Lilies were shown most admirably, also a collection of hardy Pitcher Plants, *Acers*, *Heaths* and hardy perennials in quantity, tastefully arranged, formed a highly creditable collection. The gold medal of the society was awarded to this exhibit. Messrs. Pennick and Co., Delgany, staged a collection of hardy flowers, also some fine Apples, and were awarded a bronze medal. A similar medal was given to Baker's, Wolverhampton, for a fine exhibit of early *Chrysanthemums* and Dahlias. Floral designs from Messrs. Jameson and Sons, Sandymount, were greatly admired. This firm also showed a stand of foliage and flowering plants, and were awarded a gold medal. Sweet Peas were largely shown. A notable prize-winner in the various classes

was Lord O'Neill, who won the champion prize, with which is included the society's gold medal, for eighteen bunches in eighteen distinct varieties. In the Grape classes the winner of the first prize for two bunches, white, was the Earl of Meath, the same exhibitor taking first honours for two bunches of black Grapes other than Black Hamburgh. Lord Decies was awarded first place for a dish of excellent Peaches, the Earl of Meath being again successful in the class for Nectarines, also for a green or white fleshed Melon. A successful exhibitor in the classes for Apples, both dessert and cooking, was Lady Annaly. For a dish of six Tomatoes Colonel Claud Cane was awarded the first prize. For a collection of twelve distinct kinds of vegetables a silver cup is presented by Sir James W. Mackey, Limited, Dublin, the cup to be won three times before becoming the property of the winner. The winner on this occasion was Nathaniel Hone, Esq., St. Dolough's Park, Raheny. For a smaller collection Dr. O'Donel Brown was awarded first prize. A very creditable collection of vegetables was staged by the Vacant Land Cultivation Society, Dublin Branch.

BOOKS.

The Book of the Links.*—During recent years golf has become exceedingly popular, and in many parts of the country new links have been formed, the proper upkeep of which, as well as those of longer duration, causes no little anxiety to those responsible. For this reason this book, which Mr. Sutton has compiled, will, we think, meet with a very warm reception. Much of the advice tendered in its pages, though primarily intended to apply to golf links, is also applicable to bowling greens and lawn tennis courts, the chapter on manures, as well as that on "Grasses and Grass Seed," from the pen of Mr. Martin H. F. Sutton, being particularly valuable in this respect, as Mr. Sutton has long been regarded as an authority on grasses for all purposes. The chapter on the construction of new golf courses by Mr. H. S. Colt should be read by all whose duty it is to construct new or alter existing links, as the author deals with the subject in a thoroughly practical manner. That different golf courses have a different effect upon a player's style has long been known, and Mr. Bernard Darwin, in the chapter for which he is responsible, gives some most interesting particulars about various courses, and this chapter should prove particularly valuable to the beginner at the pastime. The future of the golf caddie has for long presented a problem that no one seemed able to solve, at least with any appreciable degree of success; consequently we welcome the chapter from the pen of Sir George Riddell on this subject. As Sir George rightly points out, boys are usually employed for this purpose, and the work is such as does not make for more strenuous labours in later days. For that reason the author would employ men, where possible. Where boys are preferred, however, Sir George rightly states that they should be taught such work as gardening and greenkeeping, as at the Woking course, this being made part of their daily occupation. The half-tone and line illustrations are an important feature of the book, and in most instances are well rendered. The cartoons are particularly humorous, and have been selected with excellent taste. To those of our readers who play or are interested in golf we can with the greatest confidence recommend this book.

The Forthcoming Dahlia Show.—The annual exhibition of the National Dahlia Society will be held at the Crystal Palace on September 17 and 18. Every year new specimens of the Dahlia are produced, and, judging from this year's catalogue, the September exhibition will prove no exception. The society has three distinguished patrons in Sir Trevor Lawrence, Bart., K.C.V.O., V.M.H., Sir John T. D. Llewelyn, Bart., D.L., F.R.S., F.L.S., and Leopold de Rothschild, Esq. The president is George Gordon, Esq., V.M.H.

* "The Book of the Links," a Symposium on Golf, by Martin H. F. Sutton, F.L.S. London: Messrs. W. H. Smith and Son, Fetter Lane; price 10s. 6d. net.

Bulbs Grown in Moss Fibre.—Subject to the general rules of the society, the Council of the Royal Horticultural Society offer a number of prizes presented to them by Mr. Robert Sydenham at their spring bulb show on March 4 and 5, 1913. Full particulars of these prizes can, we presume, be obtained from Robert Sydenham, Limited, Tenby Street, Birmingham.

Heather Day in Scotland.—In connection with the Scottish Children's League of Pity, a Heather Day, on the same lines as the Alexandra Rose Day, was arranged for August 23, and an appeal was made for bunches of Heather to be sold in Edinburgh and other Scottish cities and towns. Lady Clementine Waring was at the head of the movement, and it has been well organised, so that it is expected the results of the event will be a satisfactory amount.

Galloway Station Gardens.—The secretary and manager of the Portpatrick and Wigtownshire Joint Railways has just announced the results of the inspection of the station gardens on the system of the railway, and they are as follows, in the order named: Crossmichael; New Galloway, Palnure, Newton-Stewart and Creetown (equal); Stranraer, Gatehouse-of-Fleet, Sorbie, Millisle and Parton. The gardens on this line have looked very well this season, and over all show a continuous improvement.

OBITUARY.

R. L. GARNETT.

THE death took place on the 19th ult. of Mr. Richard Lawrence Garnett of Wyreside, near Lancaster. Mr. Garnett was a well-known North Lancashire horticulturist, being to the fore as a Rose exhibitor, especially at Ulverston, where he was a prominent supporter and successful exhibitor. He also was successful in herbaceous classes. One of the most genial of country gentlemen, he delighted in the beautiful family seat at Dolphinholme, and kindred spirits of the horticultural fraternity, however humble, were sure of a welcome. To hear the deceased gentleman discourse on the beauties of Roses and other flowers was indeed a pleasure. Mr. Garnett, although injured in boyhood, had since been a cricketer. He had also been a poultry-fancier, especially of Seabrights. He was in his sixty-seventh year, was a bachelor and lived a quiet life. He was interred at Dolphinholme on the 22nd ult., many representatives of public bodies attending.

GARDENING APPOINTMENT.

MR. R. SAVAGE, head-gardener for the past seventeen years to the late Mrs. Saunders Knox Gore, Belleek Manor, Ballina, has been engaged as steward and gardener to F. Douglas Osborne, Esq., The Grove, Balrath, County Meath, and has entered upon his duties there.

TRADE NOTES.

WHY USE WHITE LEAD PAINT?

THIS is the question that Messrs. Walter Carson and Sons of Battersea, London, and Bachelor's Walk, Dublin, ask in their interesting booklet, just published. It is a pertinent question, because, as they point out, white lead paint usually costs about eleven shillings per gallon, while "Vitrolite" costs only 9s. per gallon. In addition, it goes further, lasts longer and looks better than white lead paint, and is non-poisonous. Those who have greenhouses or conservatories know only too well how quickly white lead paint becomes discoloured, and not infrequently powders or flakes off. "Vitrolite" has been specially prepared to withstand extremes of temperature, and can safely be used for both indoor and outdoor decorations. We have tested it thoroughly, and find that it fulfils all that Messrs. Carson claim for it. "Vitrolite" dries with an enamel-like surface, and all who are thinking of having greenhouses, conservatories or, indeed, any woodwork repainted should write to the makers for full particulars.

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Messrs. J. R. Pearson and Sons, The Nurseries, Lowdham, Notts: Bulbs.
Messrs. Fisher, Son and Sibray, Limited, Handsworth, Sheffield: Bulbs.
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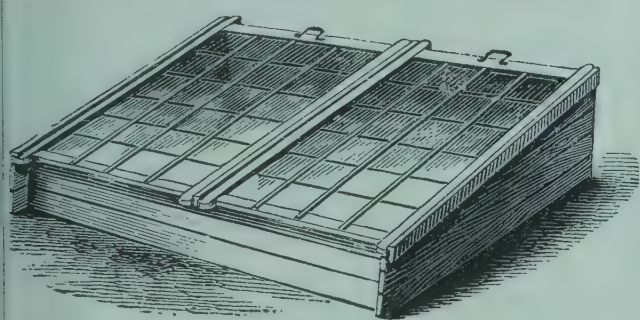
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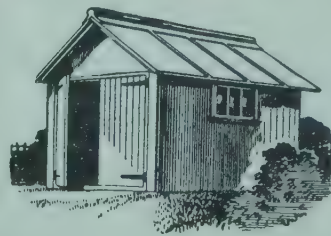
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Europe ...	10/-	"	1/6	Phyllis ...	7/-	"	1/-	White Queen ...	10/-	"	1/6
Flambeau ...	8/-	"	1/2	Pride of Haarlem ...	10/-	"	1/6	Finest Mixed ...	5/-	"	9d.

COTTAGE TULIPS

Bouton d'Or ...	5/-	100	9d. doz.	Golden Crown ...	25/-	1,000	3/- 100	Macrospeila	25/-	1,000	3/- 100
Elegans ...	8/-	"	1/2	Inglescombe Scarlet	7/-	100	1/- doz.	Mrs. Moon ...	16/-	100	2/3 doz.
Faerie Queen ...	8/-	"	1/2	" Pink... ..	7/-	"	1/-	Orange King ...	21/-	"	3/-
Flame ...	17/6	"	2/6	" Yellow	21/-	"	3/-	Parisian Yellow ...	5/-	"	9d.
Fulgens ...	6/-	"	10d.	Isabella ...	4/-	"	8d.	Picotée ...	4/-	"	8d.
Gesneriana lutea ...	7/-	"	1/-	La Merveille ...	4/-	"	8d.	Retroflexa ...	5/-	"	9d.
" Major ...	45/-	1,000	5/- 100	Le Rêve ...	18/-	"	2/6	Vitellina ...	10/-	"	1/6

TULIPS FOR BEDDING AND FORCING

Duc van Thol, scar- let ...	45/-	1,000	5/- 100	Lady Borell (Joost v. Vondel white, grand) ...	9/-	100		Proserpine, silky rose ...	8/6	100
Chrysolora, fine yellow ...	35/-	"	4/-	Keiser's Kroon, crim. and yellow	40/-	1,000	5/-	Rose Gris - de - lin, pink and white ...	30/-	1,000
Cottage Maid, rose and white ...	35/-	"	4/-	La Reine ...	30/-	"	3/6	Thos. Moore, apri- cot ...	3/6	"
Couleur Cardinal, grand crimson ...	7/6	"		Mon Trèsor, finest yellow ...	45/-	"	5/-	Vermilion Brilliant, fine forcer ...	8/6	"
Couleur Ponceau, crim. and white... ..	27/6	"	3/6	Ophir d'Or, good yellow ...	40/-	"	4/6	White Hawk, one of best whites ...	6/-	"
Duchess of Parma, crim. and orange	35/-	"	4/-	Pottebakker, White, fine ...	7/-	"		White Swan, late white ...	4/-	"
Joost van Vondel, crim. and white... ..	6/-	"		Prince of Austria, grand orange-scarlet	6/-	"		Yellow Prince, sweet scented ...	35/-	"

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for bedding or pots, the cheapest line
in named Hyacinths.

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White, do. do. ...	17/6	"	2/6
Blue, do. do. ...	16/-	"	2/3

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(The Poor Man's Orchid.)

Finest mixed ...	8/-	1,000	1/- 100
In named vars. ...	14/-	"	2/-

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Blue, var. shades, mixed ...	12/-	"	1/9
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	100		Doz.	
	S.	D.	S.	D.
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La Reine, white, feathered rose ...	3	6	0	6
Mon. Tressor, fine, large rich yellow ...	5	0	0	9
Prince of Austria, glowing reddish terra cotta ...	7	0	1	0
Proserpine, rich silky rose, lovely ...	9	0	1	2
Rose Gris-de-lin, pale rose and white ...	3	6	0	6

DARWIN TULIPS

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Duchesse de Mouchy, pale rose pink	10	0	1	6
King Harold, very fine crimson maroon	12	6	1	9
Nora Ware, silvery lilac, very lovely	9	0	1	3
Suzon, cream ground, flushed salmon pink	—	—	4	6
Van Poortvleit, glowing crimson scarlet	12	6	1	9

COTTAGE TULIPS

Bouton d'Or, cup shaped, deep yellow, fine	5	0	0	9
Faerie Queen, beautiful heliotrope, shading to yellow	8	0	1	2
Gesneriana lutea, rich yellow, pointed flower	7	0	1	0
Inglescombe Pink, pale, rose-shaded salmon	7	0	1	0
La Merveille, clear terra cotta, lovely	4	0	0	8
Mrs. W. O. Wolseley, pointed, deep crimson	10	6	1	0

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City of Haarlem, superb yellow	8d.
Enchantress, pale porcelain blue	6d.
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Jacques, palest pink, extra fine	6d.
King of the Blues, very fine dark blue	4d.
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1st size Bulbs	2 0

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(Heavenly blue), very large bulbs	4	0	0	8
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Extra selected bulbs	4	0	0	8
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SNOWDROPS Galanthus Elwesia,

Extra selected bulbs	3	0	0	6
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Growing in bowls or pots and for garden decoration should be planted this month. ORDER AT ONCE.

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THE GARDEN.

No. 2130.—VOL. LXXVI.

SEPTEMBER 14, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Office: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Tulips and German Irises.—Now that the bulb-planting season is with us, it may be useful to recall a charming combination of German Irises and Tulips that was noticed last May. This was a bold grouping of the common blue German or Flag Iris, thinly interspersed with the lavender-coloured Tulip the Rev. H. Ewbank. Those who possess groups of the Iris in question should procure some bulbs of this Tulip during the next few weeks and plant them between the Irises.

White Phloxes and Gladioli.—Since writing the note about the white Phlox Mrs. E. H. Jenkins in our issue for last week, we have seen a large bed filled with it and the scarlet Gladiolus brenchleyensis, in the proportion of two parts Phlox and one part Gladiolus. This is a simple effect that might be carried out in many gardens, but room should be left, when planting the Phloxes in autumn or winter, for the Gladiolus corms, which would be planted at the end of March or early in April.

Gladioli and Gypsophila.—One of the most effective bedding arrangements we have seen this month is that of late-flowering Gladioli over a groundwork of Gypsophila paniculata. The Gypsophila is kept to a height not exceeding 18 inches, and the tall, handsome spikes of the Gladioli, with sword-like foliage arising from a cloud of Gypsophila, is most effective. The Gladioli are seen to the best advantage if each bed is kept to one colour. Dark crimson and deep pink shades lend themselves admirably to this arrangement.

Japanese Windflowers.—When thoughtfully planted, Japanese Windflowers or Anemones may be used with good effect for an early autumn display. If grown under the shade of trees and fringed with the little autumn-flowering Cyclamen, C. europæum and C. hederæfolium, the association of colour at this season, when the plants all flower together, is exceedingly beautiful. Allium Huteri, a little-known species with purple flowers and about eighteen inches high, is well adapted as a groundwork for Japanese Anemones, and produces a fine colour effect at this time of the year.

Paved Lavender Walks.—Lavender walks were pleasing features of gardens in bygone days, and it is gratifying to note that they are being revived in many places. A paved walk lends an old-world appearance quite in keeping with this phase of gardening, and if Harebells or dwarf blue Campanulas can be induced to grow between the paving-stones, the effect in late summer is most pleasing. The blue Campanulas, the Lavender flowers and its grey foliage all enter into perfect harmony of colour. The silvery blue variety of

Campanula pusilla known as Miss Willmott is specially adapted to this purpose.

A Useful Hardy Heath.—Erica vulgaris Foxii is one of the dwarfest, daintiest and most desirable of the hardy Heaths now in flower, and a delightful plant in every way. Its rounded, cushion-like tufts are particularly dwarf and compact, the whole plant being studded with pinkish flowers on short, erect stems. The plant is so eminently fitted to the cool and sheltered places of the rock garden that those desiring the best of everything should make a note of this elegant and pretty variety.

Sternbergia lutea.—One of the signs of the on-coming autumn is the appearing of the flowers of this small group of bulbous plants, the best of which, perhaps, for garden purposes is that known as S. l. angustifolia, and which is characterised by narrower leaves of a rather dark and shining green. The rich yellow flowers of both are a great attraction in the garden at this season, and where the plants succeed they deserve much encouragement. The species are impatient of removal, and should be left alone to become established. They grow best in sandy loam of considerable depth.

Torch Lily, or Flame Flower.—Of early autumn flowers few are more striking than the Torch Lily, or Flame Flower. It is seen to the best advantage when planted in bold clumps by the water-side or in large irregular beds in the pleasure grounds. The handsome spikes in warm orange red tones of colour have earned for this plant the popular title of Red-hot Poker. The species Kniphofia aloides, or Tritoma Uvaria as it is still called in many gardens, is perhaps the oldest, and certainly one of the best of the family. In hard winters many kinds have perished, but this may be arrested by a covering of dry leaves or ashes in late autumn.

A Wonderful Potato Crop.—Considerable interest has been aroused in the Croydon district recently by an extraordinary crop of Potatoes. It seems that last spring the St. Barnabas, Sutton and District Horticultural Society purchased fifty-one 11b. bags of seed Potatoes, each containing nine tubers, and distributed them among the members. Four prizes were offered for the heaviest yield and four for the best quality. The happy winner of the first prizes for both weight and quality was Mr. C. F. Clark, The Gardens, Banstead Grange, Banstead, Surrey. His crop turned the scale at 231½lb., made up of 219lb. 2½oz. of ware size, 9lb. 7oz. of seed size, and 2lb. 14½oz. of chats or small ones. The variety was a special selection of The Colleen. It would be interesting to know how frequently the stems of the plants were layered during their growth.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Diseased Sweet Peas.—The diseased Sweet Peas mentioned in your issue last week, page 445, as sent for the inspection of the Royal Horticultural Society's scientific committee, were grown in a private garden, and not at the Shelley Sweet Pea Farm, where no streak has appeared.—T. H. DIPNALL.

Tunica olympica.—In the Olympian Rock Tunica we have a counterpart of the better-known T. Saxifraga, but with white flowers. It is as free-growing, as hardy and as pretty in its graceful habit. For a rockery the Olympian Tunica deserves consideration, either alone or as a companion to T. Saxifraga. A dryish soil and a sunny place are desirable for these pleasing flowers.—S. ARNOTT.

Calceolaria amplexicaulis.—This handsome but somewhat neglected plant, with its flowers of a beautiful soft lemon yellow, is, without doubt, the most attractive of the whole genus that is used for bedding purposes. A large bed filled with this and intermixed with the beautiful blue *Salvia patens* gives a very pleasing effect during the summer. Like all other *Calceolarias*, it requires a little shade and a good loamy soil enriched with well-decayed manure. Cuttings should be taken during September or early in October and put in boxes, but they require more warmth during the winter than the ordinary bedding-out *Calceolaria*.—F. G. P.

Dwarf French Bean Sutton's Green Gem.—It would be well if the characteristics of this Haricot Bean were better known. Here we always sow a good breadth of it, and guests who have not previously tried it are invariably charmed with it. The seeds are pale green in colour, and, when properly cooked and served, the dish presents a most appetising appearance. When stored the seeds do not, as a rule, lose their green colour, and they make a tempting and agreeable adjunct to our meals throughout the winter. The plant is a prolific bearer, giving a good crop here in both wet and dry seasons.—F. HERBERT CHAPMAN, *Rotherside Gardens, Rye.*

Cordon Gooseberries.—There are many gardens where cordon-trained trees of the Gooseberry might be introduced with great advantage. Planted at the foot of walls between other trees on a trellis consisting of wood or wire, or even trained to stakes, they are most useful, and much waste land can be profitably utilised by their introduction. Single, double or treble cordons may be used, according to the space to be covered. I will not enter into details of cultivation here; this brief note is simply to call the attention of gardeners to the value of cordon Gooseberries for planting on any vacant wall, fence or trellis, no matter whether the site is north, east, south or west.

Planting Conifers.—The present month is considered by several experts to be a good time for the planting of many coniferous subjects. After the heavy rainfall small conifers will be moist at the roots, and will not be liable to suffer from drought. Unfortunately, however, the temperature of the soil is very low, especially in low-lying, wet localities, and it may not be advisable to plant choice subjects unless the land is well drained, either naturally or otherwise. Under these circumstances it would be better to defer the planting until spring. Where the conditions are favourable,

planting may be done now with every prospect of success. With very small plants the risk of failure is reduced to a minimum.—COLIN RUSE, *Lambay Island, Rush, County Dublin.*

Rose Shades for Wet Weather.—Most rosarians have been troubled with hundreds of spoilt blooms owing to the continuous wet weather prevailing. Those who have not used the "Autumn" Protector should procure some of them. They are made like the summer shades, but covered with a transparent material, and are most useful. By using these shades, clean, well-developed blooms are obtained, and many varieties that will not open during a damp, cool season such as the present come out quite easily. Roses have bloomed remarkably well, but their beauty has been marred by the incessant rain. These shades can be had from Mr. John Pinches, Camberwell, and repay the small outlay in aiding rosarians to cut good blooms in any weather.—E. E. F.

Planting Hardy Flowers.—The note by "J. L. E.," page 437, issue August 31, is a timely one. The reference to the preparation of the soil is important, as thousands of plants are put in annually without any previous preparation of the soil, and when they do not succeed, the owners wonder why. The great majority of hardy plants will grow if merely heeled-in in the ground, and it is owing to their hardiness that they often get badly planted. Autumn planting is much better than spring planting, as a rule, as the plants put in in the autumn grow so much stronger the following summer. I have both planted and seen others plant hardy perennials in autumn and in spring, and never found the latest-planted ones to do as well as the others, with the exception of the *Pyrethrums*. A deep, rich loam, or a deeply-trenched poor soil moderately enriched with manure, will prove a far superior rooting medium to one, however rich it may be, which is simply pricked over on the surface and left with a hard, unbroken pan below.—B.

A Useful Chinese Vine.—Numerous species of *Vitis* have been introduced into our gardens from China during the last ten years. Among these one of the most distinct and useful is *V. henryana*. A particularly valuable asset is that it is self-clinging. The pinnate leaves consist of five leaflets, the central and largest leaflet being $2\frac{1}{2}$ inches to 3 inches long and an inch wide. The mature leaves are dark green, with silvery markings along the principal veins. The young shoots and leaves are red in colour, the under side in particular being a rich shining metallic red. In autumn the leaves assume bright red tints, the silvery hue of the veins becoming even more conspicuous. Experience, so far, with *V. henryana* seems to suggest that it is not perfectly hardy during a severe winter in exposed positions, though this may be only in a young state. A plant growing vigorously on a sheltered north-west wall, where it has passed unharmed through five or six winters, suggested the writing of this note. Under glass in a cool or cold greenhouse and corridors the red tints of *V. henryana* are even more beautiful. Cuttings made of the young growths root readily in a close frame during late summer and autumn.—A. O.

The Chimney Bell-flower.—Quite recently, when looking through the glass department at the trial grounds of Messrs. Sutton and Sons, Reading, I was struck with the many giant examples of this old-fashioned perennial, *Campanula pyramidalis*, then in the heyday of their flowering. The plants were of such exceptional size and ornamental value that one naturally enquired by what special

method such grand specimens had been obtained. In the ordinary way the seeds are sown in spring, pot culture being resorted to all along the line, the flowering resulting when about eighteen months old. The system employed at Reading is somewhat different, and is both simple and economical. It is as follows: A seed-sowing is made early in the year, and the young plants, having been grown on, are planted out in the open, where they remain not only the whole of the first winter, but right away into the autumn of the second season; when they are lifted and potted. In this way, and accorded elbow-room, giant rosettes result at a minimum cost of labour and trouble, any plant attempting to spike in the meantime being discouraged. Given cold-frame treatment after lifting, the plants are brought into the conservatory in the early summer-time to flower, being then about two and a-half years old.—E. H. J.

The Famous Auchmore Vine.—Although usually spoken of as the Auchmore Vine, this famous Grape Vine is at Kinnell. Both houses are, it is true, on the one estate, and are the property of the Marquis of Breadalbane. While the gardens at Kinnell and the surrounding district are very interesting, it was the Vine that was the main reason for our pilgrimage on a recent August morning, and I will confine my few remarks to this wonderful object. The house, which is entirely filled with this one Vine, is 172 feet long and 15 feet wide. The stem, 9 inches from the ground, girths 38 inches. The whole Vine is in the best of health, and is carrying a heavy crop of excellent Grapes. The bunches are of fair size, some of them scaling over three pounds, while the berries are large, with heavy bloom and excellent finish for a Black Hamburgh. Roots of this Vine have been found in a park 150 yards distant from the house. It is truly a wonderful sight, and the greatest credit attaches to the several gardeners who have had charge of this Vine during its eighty odd years of life. Mr. Easson, who at present has it under his care, is maintaining to the full the skilful treatment that has always been extended to it, and Lord and Lady Breadalbane must be justly proud of their unique Vine, of which they take such care.—C. BLAIR, *Preston House Gardens, Linlithgow.*

The Madonna Lily.—The illustration of the bed of Lilies, page 436, issue August 31, is very charming, and Mr. Jenkins, on the same page, gives some concise, useful hints on the planting or transplanting of the bulbs. I for one would have liked to see some reference to the dreaded disease by the same writer, as about twenty years ago I had to deal with large beds of this Lily, which were at the time badly diseased. I had at that time just taken charge of a large garden, the vegetable garden alone covering an area of six acres, and these Lilies were mainly grown in two borders, one very dry, the other medium. The plants were very badly diseased, so early in the autumn the bulbs were lifted, soaked in water for a few hours, and then replanted in another quarter of the garden. The bulbs were never exposed to the air from the time they were lifted till they were replanted. The following year the plants were less diseased and flowered better. After three years had passed, the bulbs were once more lifted and replanted in a fresh border, but although they did very well, the disease never entirely disappeared. Manure was not put in, as the soil had been manured for other kinds of crops. Those bulbs left undisturbed practically died away.—AVON.

Fremontia californica.—I was pleased to see a reference to this flowering shrub on page 423, issue August 24, by "S. T." It seems to me that it is a scarce shrub in this country, and deserves to be more widely cultivated. At Crag Head, Manor Road, Bournemouth, there are two specimens growing on the north side of the residence of G. J. Fenwick, Esq. One is a splendid shrub—a tree I ought to say, perhaps, as it is nearly fifteen feet high—and during the flowering season was a beautiful object indeed. This residence is close to the sea, the south side facing it, and as the east winds are badly felt there at times, perhaps the *Fremontia* would not succeed as well there as it does on the more sheltered north side. In more inland districts the shrub would do well in any position if not unduly exposed to the east winds. The rooting medium is of a light nature and well drained.—B.

An Extraordinary Madonna Lily.—

I am sending some flowering stalks of *Lilium candidum*. I have had the bulbs three years now, both single and in clumps. The bulbs have always been in fine condition and mostly of large size, but all have malformed blooms similar to those enclosed, and have been so each year. Some clumps have eighteen to twenty bulbs and stalks. Last season they were even stronger than this, and many were 6 feet to 7 feet high. I have seen the same result in two other gardens, where the stock came from the same source, unfortunately, through seeing the grand bulbs and condition of those I bought. I may say some have been grown south and some north of my cottage, and those in the other gardens are in quite different soil. Last season I parted some of the clumps and planted them singly in a well-manured trench (after Sweet Peas) and extra deep, but they are just the same this year. Can you tell me the cause of this, and the remedy if there is one; or shall I burn the lot? I may say I have some imported bulbs in the same border which have flowered splendidly this season, one with twenty blooms on a stem.—J. W. HATCHETT, *The Box, Cowbeech Hill, Hailsham, S.O., Sussex*. [We had the largest of the spikes sent by our correspondent photographed, and sent the photograph to Mr. E. A. Bowles, who is so well versed in abnormal plants. He replies as follows: "Surely the photograph is of *Lilium candidum* flore pleno? It is unusually fine, but I think in hot seasons I have seen it almost as long. Of course, the double form of *candidum* is not beautiful, as the doubling is really a case of proliferation of the axis, with perianth segments at

intervals. I see Dr. Masters writes of it in 'Vegetable Teratology,' page 286: 'There is in cultivation a variety of the white Lily, *L. candidum*, sometimes called the double white Lily, in which the segments of the perianth, in place of being arranged in two rows, are greatly increased in number, and disposed in a spiral manner. In these flowers not only are the stamens and pistils thus modified, but also the upper leaves of the stem.' They will never go back to the normal form, and must have been sent out through

mixing of stocks in a nursery. I showed the photograph at the meeting of the scientific committee of the Royal Horticultural Society on Tuesday, the 27th ult. No one there had seen so fine an example before. One member, Mr. Worsley, had seen it near Cambridge this year. I feel sure it is an extra fine example, but the bract-like perianth segments we all thought were rather narrower than we had seen before. It would be a pity to destroy the bulbs altogether, and it would be interesting, if the owner would grow a few for a season or two, to



A SINGULAR FLOWERING SPIKE OF THE MADONNA LILY.

watch how constant the habit is and if other seasons affect it at all, or, failing that, I would grow and watch it, and perhaps Mr. Chittenden, Director of the Wisley Gardens, and the Kew authorities would also do so."—ED.]

FORTHCOMING EVENTS.

September 17.—National Dahlia Society's Exhibition at the Crystal Palace (two days).

September 18.—North of England Horticultural Society's Show at Leeds.

DAFFODILS IN ROSE-BEDS.

FOR those who have ample room for all the Daffodils and all the Roses they wish to grow in their gardens, I am by no means sure that I would recommend as an ideal method growing both together in the same beds or borders. There is, however, a period, after the Roses have been pruned in the spring, when the Rose-beds look very empty and uninteresting, and those who desire something of interest in their Rose-beds at this period will find Daffodils very useful to supply interest to the beds and to light up the garden.

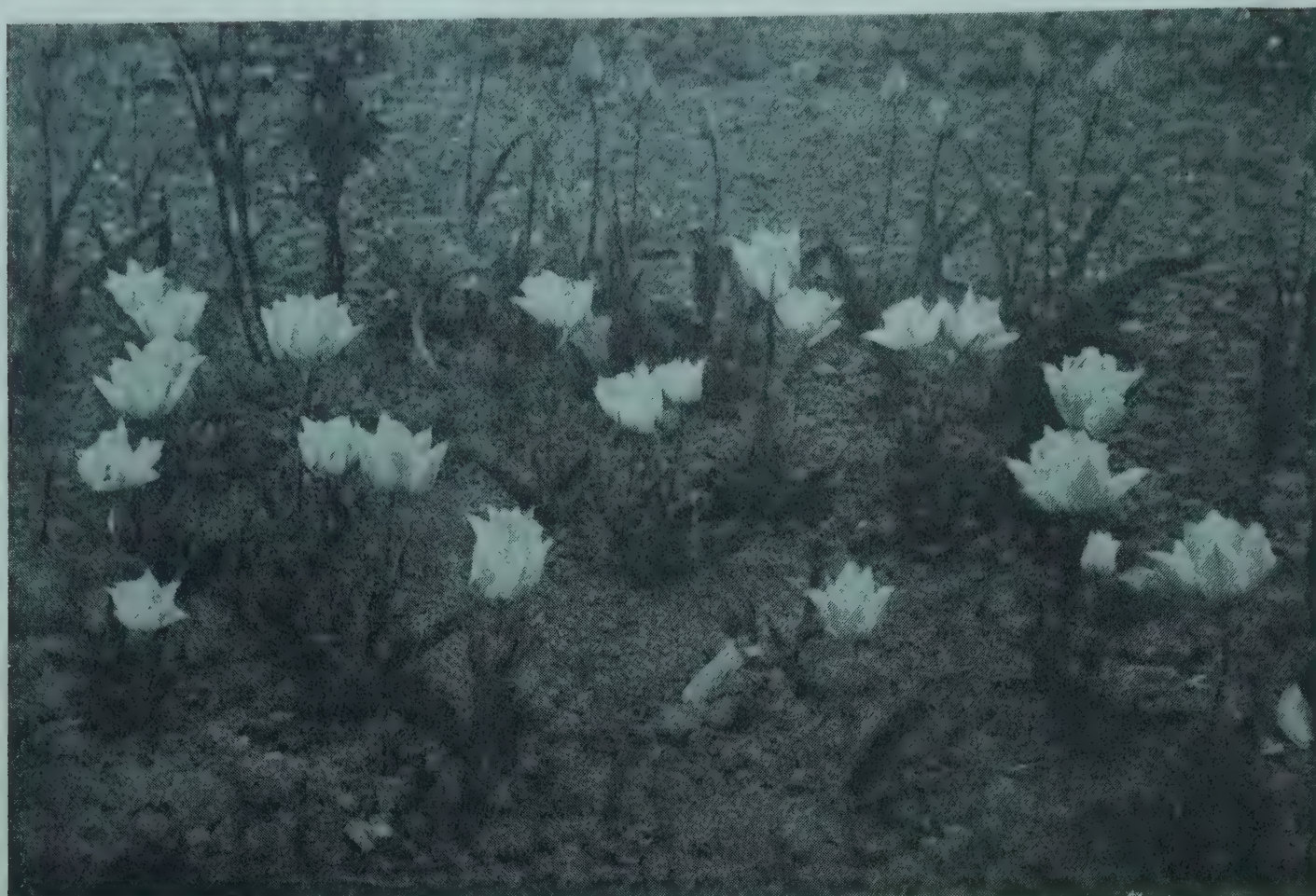
Others there are—and I am myself among the number—who find they have not room in their gardens to grow all the flowers, both of Daffodils and Roses, which they wish unless they adopt some method of this kind. For some twenty years I have practised this method, and the Rev. J. Jacob has suggested my experience might be of interest.

The disadvantages of the method are that the constant supply of manure given to the Roses, particularly in the resting season of the bulbs, is supposed to be unsuitable for Daffodils, and besides this the flowers, especially in windy weather, are apt to get badly scratched by the thorny stems of the Roses; while from the other point of view it is thought that the Queen of Flowers is impatient of any rival sharing in her palace, and that the disturbance to the roots of the Roses when the bulbs are lifted at the height of the growing season is much to be deprecated.

There is something in all these objections, but the disadvantages may be minimised with care and proper treatment. To begin with, the right kinds of Daffodils must be selected. There are some which certainly resent this treatment. The strong food is too much for them, and they either do little good from the start or become diseased after the first year or so. For the most part strong and vigorous growers must be selected; but when the right kinds are used they often do amazingly well and give very fine flowers, the bulbs often increasing faster than I could wish. Besides this, to succeed with this method care should be taken not to put on a heavy dressing of manure in the autumn and leave it there all the winter. This is a bad plan both for the Roses and the bulbs, and its injurious effect on the Daffodil leaves may often be plainly seen, particularly when growth has suddenly been checked by a February or early March frost.

It is also of much importance for both the occupants of the beds to keep the soil sweet. This is most readily accomplished

by recourse to a dressing of lime from time to time. Although I am in the habit of administering this whenever I think it is required, I fancy its effect is particularly beneficial about the end of May or early June. Basic slag has a somewhat similar effect in sweetening the soil, but I have usually employed this in winter or early spring. Then as to the scratching of the flowers and leaves, this is a trouble at times in windy weather, but it need not be serious. The remedy is simple—prune early and prune hard.



TULIP MURILLO, A BEAUTIFUL DOUBLE VARIETY WITH FRAGRANT, PÆONY-LIKE FLOWERS.

Lifting the Bulbs is certainly rather a troublesome business. It must be done early—by the end of May—while the foliage is strong and will withstand a good tug, and it must be done carefully so as to injure both roots and shoots of the Roses as little as possible. I admit to a certain feeling of relief when it is over. It must be done frequently, at least every three years, and perhaps every other year is better. In order to facilitate it the bulbs should not be planted too deep, but they must be deep enough to be safe from injury during the summer hoeing. I often find it convenient when lifting the bulbs to break up the clumps, and replant at the same time a single bulb in place of each clump lifted. As soon as lifting is finished, stamp the bed well down and give a good watering for the sake of the Roses, and it will be found they have suffered very little, generally not at all.

The Best Varieties.—I have said strong growers should be chosen. Emperor, Empress, Victoria, Barri conspicuus and Autocrat all do well, and I do not get better Gloria Mundi or Albatross anywhere in the garden than in my Rose-beds. Rather curiously, Seagull is not quite so satisfactory for the purpose, and if used is better kept to the edges of the beds. This is also the case with most of the Leedsis, except Mrs. Langtry. Maximus is certainly capricious. Often it will do well for several years, and then suddenly and without warning become diseased. Lift it at the first sign of this happening and replant elsewhere. King Alfred, so far, has been a complete failure in Rose-beds; so have many of the newer Daffodils, even strong growers like Brigadier. Later on, when they are more common, and when, instead of growing on all the offsets, we are able to reject the weakly ones, these may be useful, but not now. Orangeman, however, has done well; so has Eyebright, but it increases too rapidly. The Tazettas do well in a sheltered spot, and Elvira (Poetaz) has been a great success for many years. Poeticus recurvus, the ordinary

Pheasant's-eye, is most successful in the rich soil of Rose-beds, and ornatus is fairly good; but many of the modern Poeticus varieties are hopeless failures. Almira I have tried over and over again, always with the same bad result; so, too, Juliet, Musidorus, Comus and Sonnet. Chaucer and Sidney, however, seem a little better. Most of the white trumpets, like tortuosus, are to be avoided; but Mme. de Graaff has done well for several years.

On the whole, the gains far exceed the losses, and I recommend the experiment to all but those who have room unlimited or limited desires in their gardens.

WHITE ROSE.

A BEAUTIFUL DOUBLE TULIP.

PREVIOUS to three years ago I must confess that the double-flowered Tulips held no charm for me. Their stunted, ragged-looking and oftentimes green-tinged flowers were to me an eyesore, and they found no place in my garden. At that time, however, a Tulip-loving friend, whose blandishments are second only to his love for the flowers, presented me with a dozen bulbs of Murillo and persuaded me to plant them. I did so, and the next spring received the most pleasant surprise that I had experienced for many a long day. Now the thought comes that there may be others who abhor the ordinary double Tulips just as much as I still do, but who would, if they knew it, welcome Murillo with open arms. For you must know that this is no ordinary Tulip. It is true that it is an "old one," and can be bought for rod. a dozen; but what matters that? Indeed, its cheapness is a boon to those who cannot afford to purchase the more expensive and, perhaps, aristocratic varieties that our friend Mr. Jacob loves to gloat over. Perhaps the best way to describe the blooms of Murillo is to liken them to a miniature Pæony, which, indeed, they closely resemble when fully open. Then its colour is such a delightful combination of rose flushed with white that ladies

simply rave over it. In addition, the blooms are decidedly fragrant, an attribute that perhaps some live bulb-dealer will one day credit to those few Tulips which possess it when describing them in his catalogue. Then the blooms of Murillo last so long, either on the plant or in a cut state, and it has a dwarf, sturdy habit that renders it valuable for bedding purposes or for the front of the border. What more would we desire in a Tulip? Beauty, fragrance, lasting properties and sturdiness are all there, and the bulbs can be had for rod. a dozen! Perhaps Mr. Jacob will one day give us a list of cheap—really cheap—good single and double Tulips, and if all are as good as the subject of this note and illustration, he will call down upon his head the blessings of many readers of THE GARDEN. H.

LATE TULIPS FOR BORDERS.

THE superb beauty and stately habit of the Darwin and May-flowering Cottage Tulips attract hosts of admirers, and bulb-growers tell us

there is an increasing demand each succeeding year for the best varieties. This is not surprising, for coupled with brilliant colours, for size and substance, more particularly in the Darwin section, the May-flowering Tulips are unequalled. In habit and appearance generally they are distinct from the early-flowering Dutch varieties.

When first raised and introduced from Holland, their advance in popularity was slow, the reason for this being the feeling that, flowering in May, they were unsuitable for bedding, it not being possible to clear the beds in time for the Zonal Pelargoniums, Fuchsias and similar plants. Tulips of such exquisite beauty, however, could not be long ignored, and, from being planted in limited quantities in borders, their popularity has increased by leaps and bounds. For general bedding their late-flowering character may be somewhat of a hindrance, but this in the garden, as a whole, is a distinct advantage. Years ago, except for a few Old English Tulips and one or two species, there was a distinct break in the floral display of the borders between the bulbs of April and the flowers of June. The beautiful May-flowering Tulips have done much to bridge over this gulf.

Even if not extensively grown for garden decoration, they are worth special attention for cut-flower purposes. With stems 2 feet to 30 inches long, the Darwins especially being stiff in stem and as straight as an arrow, they are the acme of perfection among Tulips for vase decoration, both in form and lasting qualities.

In making a selection of sorts to cultivate, the grower will find a very wide range of colour at his disposal. The Darwin section includes many shades of scarlet, crimson, red, purple, pink, lilac, rose, mauve, white and glossy maroon or black. The most important colour missing from the Darwin Tulips is yellow. This and many other shades of exquisite beauty are to be found in the May-flowering Cottage Tulips. Bulb-growers, to meet

the demand for a yellow Darwin Tulip, when specially requested, supply the May-flowering Cottage variety Bouton d'Or, which in habit resembles the Darwin section.

The following twelve sorts comprise a useful and varied selection of Darwin Tulips: Clara Butt, soft pink; Europe, rosy red; Farncombe Sanders, vivid red; Glow, vermilion; La Tulipe Noire, the nearest approach to a black Tulip (this variety and Bouton d'Or, yellow, are a lovely contrast when planted in mixture); Loveliness, satiny rose; Margaret, blush to soft pink; Pride of Haarlem, rose red, the largest of the popular Darwin Tulips; Rev. H. Ewbank, a heliotrope or grey shade; Wedding Veil, white, shaded lilac; White Queen, also known as Darwin La Candeur, the best white variety; and William Pitt, deep scarlet.

Six of the best May-flowering Cottage Tulips are Bouton d'Or, rich yellow; gesneriana, scarlet crimson; La Merveille, bronzy red, fragrant; Picotee, white, edged rose; retroflexa, pale yellow, distinct, recurved petals; and vitellina, pale cream.

The cultivation of the May-flowering Tulips presents no difficulties. They are perhaps seen to the greatest advantage when planted in masses, 5 inches to 6 inches apart, in long borders as illustrated. They are also adapted for planting in association with Wallflowers, Polyanthus, Arabis and other spring-flowering plants, the two providing an almost indescribable wealth of colour. The perennial borders may be thinly planted with the bulbs either in groups of distinct varieties or in mixture, as the Tulips will not harm the permanent plants, while they will brighten up the garden considerably in early May. A. O.

SOME INTERESTING CROCUSES.

THERE are so many things in gardening that no fellow can, or ever will, understand—historically, practically and theoretically—that it almost might be called a science of surprises. It is full of all sorts of shocks, both pleasant and unpleasant.

There are two beautiful *Lilium auratum*s. It is their second year in the ground. To-day they are the picture of health and give promise of abundant bloom. The next morning the leaves are drooping and the buds flabby and flagging. Something has happened. We say "sun-stroke," but we do not really know. This is a practical shock. We all know the sort of thing very well.

Another sort of shock is more a sad surprise than a shock. I had one the other day, or, rather, a whole series of little ones. I was looking where I could buy the species *Crocus* called Sieberi, Imperati, susianus, biflorus and tommasinianus. One after the other I took up my bulb lists. Pearson's? No. Hogg and Robertson's? No. Sydenham's? No. Dickson's of Belfast? No. Carter's? No. Hartlands? No. Bath's? No. Well, surely they will be in Sutton's? No, not all of them; even there only biflorus (the Scotch Crocus) and susianus

(Cloth of Gold). When I had sufficiently recovered, I began to ask myself what all this meant. It was indeed surprising to find in this age of rock gardens and cheapness these little floral gems unlisted, and corollarily I can only presume unknown and ungrown, for nothing is more certain than that if they were not my first they would not be my second.

These beautiful little flowers would be everywhere if people only knew how easy they are to grow and how cheap to buy. Any good garden soil makes them quite happy. They flower in advance of the Dutch varieties, and are much smaller and more dainty-looking. Biflorus is a slender, delicate white, with dark-pencilled sepals. Susianus, when open, is a rich deep yellow self; when in bud it is a study in chocolate and gold. Sieberi is a fat, jolly little fellow in a pretty mauve frock. Imperati is more slender and grows taller. When fully open it is a pale mauve, but in the bud stage it looks as if it were a combination of buff and deep purple, owing to the external colouring of the perianth. Tommasinianus is silver grey outside, and almost a lavender when the flower is expanded. Its orange stigmata are striking. All these five varieties may be left undisturbed for two or three years, when, like all others, they are all the better if they are taken up, divided and replanted in fresh soil. If the seed-pods are allowed to open when they appear on the surface, it is very easy to get colonies of seedlings.

New Seedlings.—Within the last few years some Dutch firms have put some charming new florists' varieties into commerce. A few of the best and most distinct are included in the following list, all of which I can confidently recommend: Distinction, a small flower, needs thick planting to make a good effect, a mauve pink; very distinct and the nearest approach to a pink. Dorothea, soft pale lavender mauve, an exquisite shade; does very well in pots. Hero, dark shining purple; an immense flower, very late. Kathleen Parlow,

a large pure white of great substance, and set off with prominent orange anthers; exhibited in fine condition by Messrs. Bath at the Royal Horticultural Society's shows this spring. Margot, heliotrope and lavender; a striped flower of great size and substance; pretty in the bud stage; tall grower. May, the writer's favourite white, not so large and tall as other varieties, but of extra fine form; stands wind and rough weather well. Pallas, white, with lilac veinings, very large, fine orange anthers. Sir John Bright (John Bright), a good, very deep purple, enormous bloom, and valuable because of its earliness.

A Crocus which I see highly recommended in the trade lists is Harbinger, a dark purple, said to flower three weeks in advance of all Crocuses. I have not experimented with it myself, but it must be worth while giving a few a trial. A broad purple mass of Crocus in March is a delightful sight, and there is no doubt the effect might be made more lasting by a judicious mixture of varieties, say, Harbinger (if it is what it is claimed to be), John Bright, purpurea grandiflora and Hero. P. J.

THE RAISING OF BULBS FROM SEED.

"SO little done, so much left to do," were the last sad words of a great man who now lies among the Matoppo Hills in South Africa, and whose life was employed in a work even more important than horticulture. But that will be my epitaph, anyway. The raising of bulbous plants from seed has its disappointments, its periods of weary, weary waiting; but in fascination it surpasses all other forms of speculative and experimental gardening as I know them. Let us first take, by way of a contrast, the case of that popular annual flower, the Sweet Pea. We do our



A BORDER OF MIXED MAY-FLOWERING TULIPS AT KEW. NOW IS THE TIME TO PLANT

crossing, sow the seed, and in a couple of years from then we have perhaps a series of new varieties, good, bad and indifferent, principally the last two. If by a stroke of luck we are rewarded with a prize, it goes on the market, and in a couple of years more is played out; anybody may have it. How different with a bulbous plant. I have seedling Daffodils sown in my first year of hybridising, distinguished by the letter "A." The years have rolled on and I have now arrived at letter "I," and some of my "A" seedlings have not yet flowered. Seedlings of some of the *Crocus* species sown four or five years ago last spring showed each but one spindly leaf. My gardener said he could hardly "design" them; "discern" I think he meant.

And then, when we have at last acquired something really good in bulbous plants, oh! the time it takes to work up a stock! Among my Daffodils I have particularly noted that if at any time I have selected what has proved to be a rather *indifferent* seedling, it has multiplied after the manner of rabbits or white mice; but with the choicest things the contrary is generally the case. Among records I have made is the following: The first time I ever showed seedling Daffodils of my own raising was in a class where three varieties were required. These were duly put up and a first prize taken. Of my pet flower of the bunch, and which was undoubtedly the finest of the three, I now have three bulbs only, while the other two have run into quite substantial stocks. I do not know that this is always the case, because I had it from the raiser, that the superlative Daffodil Empire is a most prolific increaser, and I have heard of a few other fine things that increase well; but I think one may say, without any fear of contradiction, that these are only the exceptions that prove the rule.

Those going in for saving seed from bulbous plants will find the crop of seed considerably affected by the seasons. Here, for instance, we have saved a comparatively small quantity of Daffodil seed this year. Although the pods looked quite as promising as usual, they were not well filled; this, I suppose, was the result of a very dry April and May. The best crop of seed I have ever obtained from my little *Iris*es of the *reticulata* section was in a spring when we had a warm, sunny spell just when they were all in flower. This brought out the bees in swarms, and they were very busy with the flowers when the sun was on them. The following spring was a cold and dull one, and the seed crop an almost entire failure. The de-anthering and cross-pollinating of small bulbous plants is subtle and very intricate work. I am afraid I let the former process slide in a great many instances. It has always struck me that a watchmaker would be the

man to make a hobby of it. He would be well equipped by practice and experience to do it effectually.

I am in doubt as to the preferable qualities that would go to make up a successful raiser of bulbous plants. We might take the case of a man who was capable of taking great care, infinite pains, who was never daunted by the frequent failures encountered, but kept pegging away until he had successfully effected the different crosses he desired to make; but if he had not the eye and the right taste in *selecting* his things when he had

and at no time is it so bright and well defined as in Heroine. Take away the colour from Albatross, and I would then much prefer Seagull. Take away the beautiful red edge from Heroine, and then most of its value would be gone. But it never varies, and herein is its superiority to Albatross most chiefly shown. At present it is expensive, but as it is a good doer on all but very heavy, cold soils, it will doubtless soon be offered at a lower figure. Many who would like to own a bulb will welcome that happy time and hope that it will not be long delayed.

POETICUS.



NARCISSUS HEROINE, AS SHOWN BY MESSRS. PEARSON AND SONS OF LOWDHAM AT THE BIRMINGHAM SHOW.

flowered them, of what avail would all his labour be? A combination of all the qualities I have named would be ideal.

Rye.

E. HERBERT CHAPMAN.

A GOOD NEW DAFFODIL.

NARCISSUS HEROINE is one of the specialties of the firm of Messrs. J. R. Pearson and Sons of Lowdham. It is a singularly attractive flower, and the writer can well remember its first appearance on their stand at Birmingham about three or four years back. The catalogue comparison between it and Albatross hardly does it justice. The latter flower is very fickle in its colouring,

and at no time is it so bright and well defined as in Heroine. Take away the colour from Albatross, and I would then much prefer Seagull. Take away the beautiful red edge from Heroine, and then most of its value would be gone. But it never varies, and herein is its superiority to Albatross most chiefly shown. At present it is expensive, but as it is a good doer on all but very heavy, cold soils, it will doubtless soon be offered at a lower figure. Many who would like to own a bulb will welcome that happy time and hope that it will not be long delayed.

The following list of browns will be useful to those who wish to add some to their collection, and as they may wish to know something about them, I append brief descriptions.

Clio, called also Bronze Queen and Biscuit, is a fine tall plant bearing large flowers of the shade of a well-baked biscuit. There always used to be a large bed of this variety every year at Glasnevin

COLOURED PLATE.

PLATE 1454.

BROWN AND BRONZE TULIPS.

ONE of the Tulips in the plate belongs to that particular type which is so often, but erroneously, put under the head of Darwins. The true and original strain, which was introduced twenty-two years ago by Messrs. E. H. Krelage and Son of Haarlem, were all either byblœmens or roses. There was not a single bizarre (that is, a flower with a *yellow base*) among them. It is a thousand pities that this distinction is not generally recognised, and that all yellows are not placed under the head of May-flowering or Cottage, which undoubtedly they are. Some of these Darwin-shaped yellows, like Golden Bronze, have a most distinct tone in their colouring, and one that is seldom met with in any race of flowers. We do come across some of the shades in the *Nemesias*, for example; but such browns as are found in *Clio*, *Goudvink*, *Quaintness*, *Toison d'Or* (which I fancy is the older and more correct name for Golden Bronze, unless it is Mahony, which is synonymous with *Toison d'Or*) and the "broken" Goldmine are very unusual.

The other flower which is figured in the coloured illustration is the exquisite *Louis XIV*. It is an aristocrat even in an aristocratic and imperial race. The rich

bronzy purple of its brown-edged petals is so suggestive of refinement and restraint. It is so sure of itself. It needs no brighter hues. Both these varieties are to be found in Messrs. Barr and Sons' collection, and they very kindly supplied the flowers from which the coloured plate was prepared.

The following list of browns will be useful to those who wish to add some to their collection, and as they may wish to know something about them, I append brief descriptions.

Clio, called also Bronze Queen and Biscuit, is a fine tall plant bearing large flowers of the shade of a well-baked biscuit. There always used to be a large bed of this variety every year at Glasnevin

Botanic Gardens, Dublin. I do not know if it is still continued, but Sir Frederick Moore has more than once told me how greatly it was appreciated by the visitors. Under the name of Clio or Bronze Queen it may be obtained from most bulb-dealers at about half-a-crown a dozen.

Goudvink is its counterpart in "tortoiseshell." I have now a good large bed of this variety, and for a long time I was at a loss to get hold of a word to describe its peculiar reddish brown. One day a visitor exclaimed, "Why, there's a tortoiseshell-coloured one!" It has been tortoiseshell ever since, for it is more like the comb in my dressing-bag than anything else. I think Mr. Bourne of Bletchley can supply this at about half-a-guinea or 2s. 6d. a dozen. It is a very fine thing indeed.

Toison d'Or, or, as the illustration has it, Golden Bronze, is a beautiful shade of rich brown-yellow. Externally it is practically a self, but inside there is a halo of a deeper shade round the yellow base, which gradually fades down to the colour of the exterior as the top of the petals is approached. Messrs. Barr and Sons list this at 4s. 3d. per dozen. It is not very often met with in catalogues. In fact, all of these browns are a bit "out of the way."

Quaintness is, roughly speaking, a pointed-petalled Golden Bronze. It has not, however, quite such a rich look about it. It might have had a thin wash of grey, just to tone it down, as it were—a sad golden brown is the description in my note-book. It is expensive. I see it priced in the list of Messrs. A. Dickson and Son of Belfast at half-a-crown a bulb. I also see it in Messrs. Barr's.

Goldmine I have grown for many years, but my stock is still only a small one. I think I had it from Messrs. R. H. Bath of Wisbech, but I cannot see it in their 1912 list, nor can I meet with it elsewhere. It is a study of Chameleon in brown, and has just that blotched look about it which I so frequently find suggests to my visitors a bird's egg. I do not say it is, but it might be the rectified form of Toison d'Or or Golden Bronze. My old gardener, who, if he could call a word wrong was certain to do so, would have spoken of it as a "marrigated" Golden Bronze. I hope someone has a stock of this singularly effective and, to so many, very attractive Tulip. Some of us, I feel sure, would like to know.

Louis XIV. I have already partly described. I need only add that it is a very tall grower and has immense Darwin-shaped flowers of that beautiful bronzy purple which we partly get, but in a much paler shade, in the standards of the Spanish Iris Thunderbolt. So highly do I think of this variety that I have no hesitation in giving it a place among the "great." It is a great Tulip. As Messrs. Barr have it, "very tall and stately and remarkably handsome." There is something about these brown and bronze Tulips that appeal to one, and the liking for them grows the more one contemplates the flowers.

JOSEPH JACOB.

CLIMATIC INFLUENCES ON HYBRIDISATION IN 1912.

TO those entering in these later days upon the work of raising new seedlings of Narcissi there cannot remain the slightest hope of emulating the splendid achievements of those who, in some cases for a generation, have devoted themselves to the work, with results which have amazed us all. With workers such as the Rev. G. H. Engleheart, Messrs. Crosfield, P. D. and J. C. Williams, Copeland, Haydon and Backhouse, only to mention a few of the giants of the cult, already holding the field, there exists now for the new-comer only the very barest and most unlikely chance of producing new varieties at all comparable with those created by the men who

of frequent occurrence, sometimes during several successive nights. The period in question covered what is usually the time when pollinating of the Narcissus is carried out. Coupled with this state of things was a season of equally abnormal earliness in the flowering of the Narcissus, due probably to the great heat of 1911, coupled with the drought of that year and the absence of severe winter frosts, resulting in the ground still retaining an unusual warmth.

In 1911 I pollinated my first flower on April 12; in 1912, on March 24, nineteen days earlier than the preceding season. As to the results following this unusual combination of unfortuitous circumstances, it may be well, before giving the data upon which my conclusions are founded, to state generally what these conclusions are, so that the data may be considered in relation thereto. My main conclusion is that the injury resulting from



DAFFODILS NATURALISED IN THE WOODLAND AT CAPTAIN S. WALTER'S, EAST FARLEIGH, KENT.

had so very long a start. They cannot now be overtaken.

Still, there remains for all of us a minor work—one of great interest and possible use to others—the compilation of statistics connected with the varied operations of hybridising, and so accumulating data which, if collected with scientific care and accuracy, may help to build up a store of facts from which in the future the laws and abstract principles connected with the subject may be recognised. And in this connection it would seem that it may not be without use to consider the lessons taught by the climatic influences on hybridisation in the very exceptional year now closing.

First, then, to recall the climatic conditions of the early months of 1912. During March and April and a part of May a period of abnormally low temperature was experienced. Frosts, often of exceptional intensity for the time of year, were

the adverse climatic conditions sustained in the trumpet section was trivial when compared with that sustained by the Medio and Parvi varieties. The reason will be afterwards considered.

Of the trumpet varieties pollinated by me in 1911 (a fairly normal season), 30 per cent. seeded. In 1912 within a small fraction of the same percentage resulted. In detail, as examples: In 1911, Mme. de Graaff as seed parent, ten seeded out of forty-one distinct crosses made; Weardale Perfection as seed parent, not one seeded out of five distinct crosses made; Duke of Bedford as seed parent, three seeded out of three distinct crosses made; King Alfred as seed parent, one seeded out of five distinct crosses made. Pollen of bad general reputation for potency, used for experiment, accounts for the failures in some cases; but the conditions were identical in this respect in 1912. In 1912, Mme. de Graaff as seed parent,

ten seeded out of thirty-nine crosses made; Wear-
dale Perfection as seed parent, eight seeded out of
thirteen crosses made; Duke of Bedford as seed
parent, five seeded out of six crosses made; King
Alfred as seed parent, four seeded out of six crosses
made. And so, in the trumpet section, 1912 does
not suffer by comparison with 1911, but rather
the reverse.

A very different story has, however, to be told
when the Medio and Parvi sections have to be
dealt with. In my garden
devastation reigned
supreme. A few examples
will serve to show the
general results. In 1911,
Lulworth, every bloom
seeded; in 1912, not one
in seven crosses made. In
1911, Will Scarlett, 50 per
cent. seeded; in 1912, not
one in six crosses made.
In 1911, Lady M. Bosca-
wen, every bloom seeded;
in 1912, 50 per cent. only.
In 1911, Southern Star,
every bloom seeded; in
1912, none. In 1911, White
Wings, every bloom seeded;
in 1912, two out of nine.
And, further, in regard to
the number of seeds con-
tained in each pod, the
season of 1912 showed a
marked inferiority to that
of 1911. White Wings, for
instance, produced in 1911
five pods which contained
together no fewer than
ninety seeds, an average
of eighteen seeds per pod.
This variety is a most
prolific bearer. In 1912
the two pods gave twenty-
eight seeds (six to the
pollen of Warley Scarlet
and twenty-two to that of
Red Beacon), an average
of fourteen seeds. This
same percentage of decrease
in number was maintained
throughout most of the
varieties, tending, as it
would seem, to evidence
a general weakening of the
plants for seeding purposes,
one result probably of the
unfavourable climatic con-
ditions which prevailed.
Bernardino and Red
Beacon I found this sea-
son to be by far the most
efficacious pollen parents;
also White Knight was
good.

In considering the con-
clusions to be arrived at,
the question at once
presents itself: Are these various ill-
results to be attributed to injury to the female (style and
stigma) or to the male (anthers and pollen lobes)
reproductive organs of the flower, or to both, and
in what relative measure?

I think that the results achieved in the trumpet
section as above stated dispose of the idea that
any marked injury to the pollen had resulted

from the frosts, and that we have to look rather
at the injury sustained by the pistil and style
for an explanation of the disastrous results.
Obviously in the trumpet section the extended
perianth afforded a better protection from the
frosts than was provided by the shorter and more
widely-opened perianth segments of the Medio and
Parvi sections, a mere matter of relative material
protection from the frost, and from the sun follow-
ing too quickly before the frost had disappeared.

further assured by friends who have been this year
hybridising Narcissi that the damage in their Medio
and Parvi sections has also been exceptionally
severe.
CHARLES E. SHEA.

POET'S NARCISSI IN THE GRASS AT KEW.

THE groups and masses of Poet's Narcissi
scattered about the grounds at Kew is one
of the most effective
features in the Gardens in
spring. The bulbs are
planted freely in the wood-
land vistas and glades, and
are quite at home in the
thin grass between the
trees. They increase freely
and flower profusely year
after year. Although the
soil in which the bulbs
grow is light and sandy,
they do remarkably well
and produce flowers of good
size and substance. Planted
in a rich, deep soil, how-
ever, the stems will grow
taller and the flowers will
be larger; but such soil is
not absolutely essential for
success with these beauti-
ful bulbous plants. In
light soil, however, there
is always a tendency on
the part of the bulbs to
increase too fast, and split
up into a lot of small bulbs
which produce only leaves
the following season, but
eventually they attain
flowering size and bloom
freely.

Early planting is recom-
mended for these Narcissi,
and the sooner they are
in the ground the better
after the month of August.
Shallow planting must be
avoided, especially in light
soil, where the bulbs ought
to be at least 5 inches or
6 inches below the surface.
When planting in grass, the
turf may be taken up; then
holes may be made with an
iron-shod stick or crowbar.
Care must be taken that the
bulbs rest on the soil at
the bottom of the hole, as
many failures are due to
suspended bulbs in careless
planting. After the bulbs
are placed in the holes, fill
up with fine soil, rake it all
over, and then replace the
turf, beating it down
firmly; or the bulbs

may be planted with a bulb-planter, which does
away with the necessity of lifting the turf. This
instrument, on being pressed into the ground and
withdrawn, removes a circular piece of turf and soil
as deep as desired. After placing in the bulb this
will fit back into the hole again. In planting, all for-
mality and regular lines should be avoided, taking
care to have irregular groups of all sizes and shapes.



AN EFFECTIVE GROUPING OF POET'S NARCISSI IN GRASS.

Of course, results are materially influenced by local
circumstances. In my case the borders, although
well protected from violent winds from north and
east, are peculiarly liable to severe damp frosts,
and gardens situated in more dry and high places
may have shown different results; but that does
not affect the conclusions arrived at under the
special conditions which prevailed, and I am

The two principal sorts which are grown, and which are cheap enough for naturalising in grass, are: *N. Poeticus* variety *ornatus*, which comes into flower first of the two, has a pure white perianth with broad and well-formed segments, the eye margined with scarlet. The old Pheasant's-eye (*N. P. variety recurvus*) comes into flower after the above is well over, and forms a valuable succession of flower. It has a pure white perianth of reflexed segments, the eye of which is margined with deep orange red. Very fragrant, it is slightly taller than the earlier variety. Besides these there are many other desirable varieties, while the hybrids of this group include many beautiful forms. W. I.

NARCISSUS PALLIDUS PRÆCOX FOR NATURAL EFFECTS.

Owing to the fact that this beautiful early-flowering Daffodil has a decided tendency to deteriorate

between the Filbert trees shown in the illustration. I think you will agree with me that *N. p. præcox* is quite at home here and increases each year. I find in one case seedlings blooming some yards away from the original planting."

THE SEEDING OF DAFFODILS.

HAVING read some time ago with much interest the results of the Daffodil seed crop for the past season, published in *THE GARDEN*, I am sending particulars of my experience, which may be of some assistance in elucidating the curious results experienced. It will be remembered that April of

and *Parvis*. Of the trumpets about seventy per cent. took—not so bad considering the season; of the *Medios* about twenty-five per cent. took; and of the *Parvis* only about twelve per cent., I think almost in inverse ratio to the normal. I am of opinion that the whole thing is accounted for by the hot sunshine and strong wind. Where the stigma was protected to an extent, as in the trumpets, results were fairly reliable; where more exposed, as in the *Medios*, most of the pollen dried and dropped off before absorption took place; and the *Poeticus* were almost a total failure for the same reason, the stigmas being entirely unprotected from sun and wind.

Perhaps, should similar circumstances again arise, it might be well to moisten the stigmas and tie up the *Medios* and *Parvis* in a paper cone for a day or two until absorption had taken place.

As evidence of the extraordinary difficulty in fertilising during the past season is the almost



NARCISSUS PALLIDUS PRÆCOX, NATURALISED BETWEEN NUT TREES IN THE GROUNDS AT EDEN GROVE, CARLISLE.

and die out when planted for natural effect in many gardens, the accompanying illustration, together with the following letter, kindly sent us by Mr. R. Carruthers, Eden Grove, Carlisle, will be of interest. Mr. Carruthers writes: "I took to the Daffodil somewhere about 1897, and these bulbs of *N. pallidus præcox* would be planted certainly after that year. This variety of Daffodil was planted in clumps of ten or twelve bulbs, the order being given for 100 bulbs. They have had nothing done to them, and simply look after themselves. They are a source of great delight each year, brightening the days of early spring with their sulphur-coloured blooms. A colony of *N. p. præcox* at the foot of the tree of Apple King of the Pippins is a few yards away from those

this year was entirely abnormal—no rain, strong sunshine and excessive wind—with the result that all plants raced into bloom, early, midseason and late, in no sort of order, but giving the hybridist the opportunity of effecting crosses which in a normal season could not take place under natural conditions. Owing to the curious weather conditions, I took rather ample notes, and I think it is possible to assign the reason for the abnormal number of failures in the past season.

I may say that I tried no "freak" crosses; all the pollen plants had a reputation for fertility, and all the seed-bearers were of good repute. I made about one hundred and forty crosses in all, fairly evenly divided between trumpets, *Medios*

total absence of any self-fertilisation. I well remember two beds of *Emperor*, which contained between 300 and 400 bulbs. I fertilised a few flowers with pollen of *Horace* and *King Alfred*. They all produced a certain quantity of good seed, but the remainder did not produce a single pod, although left standing intentionally. The same thing happened with a quantity of *Minnie Hume*. Of those hand fertilised, about thirty per cent. took, but not a single pod was set by natural means.

Invermore, Woking.

J. W. JONES.

[Mr. C. E. Shea, on page 463, gives some interesting particulars about the effects of hybridisation during the abnormal spring of this year, and attributes the failure of the *Parvis* to seed to frost.—ED.]

THE FLOWER GARDEN.

SWEET PEA NOTES.

Autumn Catalogues.—It is my intention to devote the major portion of the space at my disposal in some future issues of *THE GARDEN* to a consideration of the varieties offered in the leading specialists' lists. It is acknowledged by everyone interested in the cult of the Sweet Pea that varieties are much too numerous; but as far as I am aware no one has come forward with a really practicable suggestion as to how the state of affairs can be changed for the better. It is a small list that does not embody upwards of five dozen varieties, and some of them include nearer double that quantity. Can the tyro be otherwise than bewildered when he comes to the task of making a selection from so formidable an array of names, especially when he reads the glowing descriptions accompanying each variety?

Individual taste must, of course, mainly govern selections of all kinds of florists' flowers; but the novice who attempts such a thing in Sweet Peas will be apt to come rather a bad cropper, because there are so many varieties too closely alike to justify the inclusion of more than one of them in an ordinary collection. The publications of the National Sweet Pea Society are undoubtedly helpful, but they can scarcely be expected to give a detailed, comparative description of every variety in cultivation; hence it is wise for the uninitiated to secure the advice of an expert friend to start with.

It cannot be doubted that the seedsmen would be pleased to see their way to reduce the lists, but there are, and always will be, people who do not waver in their allegiance to old favourites, and as regularly as the seasons follow each other they ask for them, and it is obvious that the seed-merchants must be able to meet the demand. Well, perhaps we shall see a way out of the corner some fine day.

White Varieties.—When I made mention of two or three white varieties of conspicuous merit I omitted White Queen. In many cases such a lapse of memory would be of no real moment, but in this instance it is of importance, for the simple reason that this is one of the finest whites in commerce and is destined to occupy a high place in future lists. The form of the flower is excellent, the blooms are admirably set on the stem, the plant is a thoroughly good grower, and White Queen ought to have consideration from all purchasers this autumn.

A Farnham List.—Messrs. Bide and Sons, Limited, Farnham, have come prominently to the fore in Sweet Peas during recent years, and they have arranged some splendid stands at the

"National," the Royal Horticultural Society and other important shows. Their present list embodies the finest standard varieties, and no novelties are included. This is just as well, unless one can be perfectly sure that the new-comer is good enough to beat any of its predecessors, and this is not an easy matter nowadays. Among the best in this catalogue are: Agnita, cream overlaid delicate lilac; it is a beautiful flower that will appeal to those who admire refinement of colour. Seamew is a splendid grower and produces plenty

of this group that run closely together and are of about equal merit. Edna Harland is another monster flower, the colour being clear, bright pink; notwithstanding its great size it is in no sense coarse; it does not, of course, stand in a class by itself. Mrs. Hardcastle Sykes is still a favourite with many cultivators and exhibitors, and it is decidedly so with Messrs. Bide and Sons, who staunchly advocate its inclusion in collections. I may be allowed one or two lines to call attention to the magnificent flowers which this firm staged

at the Royal Horticultural Hall on August 13. They attracted wonderful attention, particularly a perfect vase of the showy Eric Harvey. HORACE J. WRIGHT.



NARCISSUS STROBOLI, A GOOD TYPE FOR THE GARDEN.

THE BEST GARDEN DAFFODILS.

HOW few of the Daffodils of fifteen to twenty years ago are to be found in the lists of the present autumn! They have gone, dropped out by the wayside in the great race for garden recognition. A process of sifting has been quietly going on. Messrs. Barr and Sons' interesting list of discards has been growing longer and longer. It is only a few of the fittest that alone survive—Emperor, Empress, Barri conspicuous, Mrs. Langtry, Mr. Walter T. Ware's great Parisian find, ornatus, the old as the hills recurvus, the pretty sweet-scented yellow Jonquils and a few more that could be counted on our fingers and toes are the sole remnants of a past of "good things," "great acquisitions" and "distinct advances." The same inexorable law is still at work, and the modern creations of the hybridist must submit to it as their forbears had to do in the past.

Not every Daffodil that has been bought with gold will be among the ranks of the "great." No; far from it; the many will not be even among the "useful." *Sic transit gloria Narcissi.* In time past I went round Mr. Willie Copeland's (we never call him William, as I suppose we ought) Daffodil garden at Kibblestone Hall. "Hallo!" I said, "what have we here?" There was a label. That was all. "Oh!" he said, "it is a grave." "A grave?" "Yes, five pounds are buried there."

of charming pale lavender blossoms on stout, long stems. Blue Belle, although it belongs to the now somewhat despised grandiflora group, is a real beauty and fully entitled to more attention; the name truly describes the colour of the expanded flower, which is lavender in the bud stage. Mrs. Stewart Champion, an immense cream pink, has not such a place of its own, since there are several

Brother and sister gardeners, have not we also many of these sad reminders of a too-confiding enthusiasm? Sometimes I fear considerably more than five pounds are in the ground beside what has come to be only a tombstone. Where is White Giant to-day? (White Giant was pictured in *THE GARDEN* Daffodil Number of 1911.) Ask the Brodie of Brodie; ask Mr. C. Lemesle Adams.

Mr. Pinches has invented a simple but effective label to keep away tramps—"Beware of the Lycopodium." Might he not turn his attention to an appropriate writing on the wall for the innocent dreamers who see the exquisite productions of a Williams or a Crosfield already growing in the greatest profusion in their little flower patch?

Mr. Duncan Pearson is one of the downright honest men of the world. He has been busy for the last month (August) catching salmon and trout in Norway. All I know about fishing is that there are long pauses in the sport between one naughty fish succeeding another on the hook. It gives opportunities for reflection and—! In his case, though, at those moments when there was no fish, I think I am safe in surmising there was a Daffodil on at the other end. One by one the new ones would come up for judgment. The fisherman returned home. One of his first letters was to me. Just note what he says: "Comparatively few of the newer Daffodils are any use for general garden purposes. When they are no longer of use on the exhibition table they are no use at all." I am convinced he is absolutely right, and that is what I have been leading up to all this time.

Now, arising out of the above there come the further obvious questions: How are we to know a good garden Daffodil? and which are they? Dealing with the first question, I would reply that it is impossible to tell except by the practical method of growing them ourselves. The two most important requisites are that the variety should be one worth having for its decorative effect; and, secondly, that it should be a good doer. It is in these essentials that shows are so misleading. They tell us neither about the one nor the other. Probably the greatest want in the Daffodil world of to-day is a series of systematic trials carried out in different climates, *e.g.*, North and South, and in different soils, *e.g.*, heavy, light and buttery, where anyone could go and see for themselves the behaviour of lesser-known varieties. It is impossible to discuss in detail all the factors that go to make a plant a good garden one. The bare mention of some must suffice; size, height, season, poise of flowers on stem, adequate foliage, conspicuity of the blooms about the leaves, burning or fading of the red colouring in the cup or eye, strength of stem, lasting qualities, power of increase, and, above all, it must have a good constitution. It must be obvious from this there will be wide differences in the garden value of the various kinds.

I now come to the second of my two original questions. Which are the ones that most nearly approximate to the ideal? Of the ancients I should say Emperor and Barri conspicuus. Among the moderns the following bid fair for fame. But as time is the supreme test of a good vintage year, so it is likewise the final arbiter of the merits of a Daffodil. I am not Father Time, and I beg readers

to remember *errare humanum est*. Taking good old Emperor as typical of a midseason bloom, I would mention as earlies Alert, Stromboli (illustrated on page 466), Duke of Bedford, Golden Spider, Silver Spur and Sir Horace Plunket among the trumpets, and Dandy Dick and Blackwell among the Medios. Then, as later flowers, Cornelia, Cygnet, Cleopatra, Mrs. Veitch and The Doctor for the Ajax section, and for the Barris and "incomps" such varieties as Solfatare, Occident, Steadfast and Amber.

The midseason ones are more numerous. They include such magnificent flowers as Bernardino, Florence Pearson, Noble, Lady Margaret Boscawen, Hall Caine, Torch, Castile, Lucifer, Whitewell, Seagull, Coronet and Olympia. This last is a yellow

Sirdar, Mermaid and the late-flowering H. C. Bowles have left White Queen far behind as decorative plants; while among the older type with smaller cups, Evangeline, Constance, White Lady and Countess of Southesk are new varieties of great value.

The Poets I must leave alone. It is almost six to one and half-a-dozen to the other as far as garden decoration goes. I cannot make up my mind about them. I am as changeable as a weathercock. However, Horace, Cassandra, Ben Jonson and Acme are exceptions. About these I do not think I do change. Last of all we have the Poetaz. They are most useful, and I am told they are at last becoming popular. The best are Aspasia, Orient, Elvira, Irene, Jaune à Merveille and Sunset.

If my choice were limited to three, I would take the first two and the last; if to one only, then Orient. Years ago I backed my opinion by a purchase from Mr. Engleheart. It is enough, perhaps, to say I have never regretted it.

JOSEPH JACOB.

NARCISSUS AVALON.

Just as Zwanenberg, that marvellous large and tall white trumpet which was shown by Mr. C. G. van Tubergen at the Daffodil exhibition in London, stands out as the *garden plant* of the year, so, according to my judgment and liking, does Avalon as a *show flower*. I have been fortunate in obtaining such an excellent likeness of it as that given on this page. When I say that the perianth is of a pure recurvus white, and that the yellow eye has a well-defined rim of bright red, readers will be able to form a fairly accurate idea of what the flower is like. Naturally, one compares it at once with the now famous Challenger, which it very much resembles. After carefully weighing the merits of the two, I am disposed to say that Avalon is the more perfect flower. It is whiter in tone, even more symmetrical in shape, quite as well balanced and quite as large. It differs from the older variety in having a rather smaller centre in proportion to its size, and a rather narrower rim of red to the cup. My measure-



NARCISSUS AVALON, A GOOD TYPE OF AN EXHIBITION FLOWER.

Ajax of huge dimensions, with a perianth of a slightly paler shade than the trumpet. The plant is a vigorous grower and fairly free flowering. It bids fair to be a serious rival to Emperor. Of Dutch extraction, it is now found in numerous British catalogues, but it ought to be in all, just as it should be in every garden. The bulbs are as large as croquet balls. They would be worth something for decorating a shop window in bulb-time if for nothing else. I now come to the Leedsii. In no class have greater improvements been made in recent years. The "giants" are an immense acquisition to our best garden Daffodils. Such things as The Fawn, Thora, Lowdham Beauty,

ments are: Diameter of perianth, $3\frac{1}{2}$ inches; diameter of cup, a bare seven-eighths of an inch; width of red edge, three-thirty-seconds of an inch. It was exhibited by Mr. A. M. Wilson of Shovell, the raiser, at the London Daffodil Show this year, and is the result of crossing Beacon (seed-bearer) with an unnamed seedling Poet. Mr. Wilson tells me that it is a tall, robust plant, and, as far as he can judge, it is likely to be a "good doer." As the bloom exhibited was, I believe, the first and only flower that it has so far produced, it is obvious that it must be two or three years before any bulbs can be offered for sale.

P. J.

THE ROCK AND WATER GARDEN.

A CROCUS FOR THE ROCK GARDEN.

AMONG the many species of early spring-flowering Crocuses, few are brighter or more pleasing than *Crocus versicolor*. The flowers, of comparatively large size, glistening white, or sometimes flushed with lavender, and veined with rich purple blue, often appear in February, and are a great delight at so chill a time of the year, the stigmata of a rich golden colour making a brilliant contrast to the segments.

As the flowers appear to open only in bright light, they are best disposed in sunny nooks about the alpine garden, where the life-giving rays of the sun (so welcome, but, alas! so fleeting at this time of the year) can fall upon them. As with most of the *Crocus* species, they are easily accommodated in our rock gardens. The ordinary gritty soil

and their beauty retained for a considerable time if a sheet of glass, larger than the group of flowers, is placed over them, supported on three bent wires, some 6 inches or 8 inches above the ground.

A reference to the issue of *THE GARDEN*, December 16, 1911, will illustrate the sort of wire supports which I find most handy for glasses up to 18 inches by 12 inches.

REGINALD A. MALBY.

THE BEST SAXIFRAGES AND HOW TO GROW THEM.

(Continued from page 449.)

Explanatory.—I find that owing to an inadvertence, my remarks in the third paragraph on page 449 are capable of more than one reading. For example, the genus *Saxifraga* is composed of many sections botanically, though it would be correct to infer that the encrusted, mossies and *Megaseas* do include a larger proportion of species and varieties of greater garden value than the rest. Then, again, it should have been made quite clear that *apiculata*, *rocheli-*

"flat rockery" they are unequalled as carpeters of the soil, and because of a disposition devoid of all fastidiousness. In the sheltered or shaded border, where the best Lilies should find a place, these Mossy Saxifrages might be employed with advantage—anywhere, indeed, where space permitted of an unfettered growth, so that their sheets of blossoms, whether of white or pink or crimson, should be of the picture-making order. Culturally, there are no difficulties in the way, since in autumn or spring the plants may be pulled to pieces and pricked out over any required area of ground.

Among the best of the older sorts are *cæspitosa* (white), *Camposii* (also known as *Wallacei*, whose big snowy bells appeal to all), *hirta*, *densa*, *Whitlavii* (white-flowered and unusually compact), with *palmata*, which is the giant of the set and a handsome plant to boot. Of the earlier coloured sorts, *Rhei* (pink), *R. superba* (pink), Guildford Seedling (crimson) and the compact-growing muscoides *atropurpurea* are the best; while of more recent varieties, *Red Admiral*, *R. W. Hosier*, *H. S. Stokes*,

Bakeri and *bathoniensis* are the best of the red-flowered set, with *Miss Willmott*, *Lady Deane*, *Lady Northcliffe* and *Arkwrightii* (white-flowered, or with a slight suffusion of colour on opening). These recent novelties are characterised by exceptional vigour, and, attaining to 1 foot high, are valuable as border plants. All are of the easiest culture. E. H. JENKINS.

(To be continued.)

THE MOUNTAIN AVENS.

THERE are, generally speaking, two kinds of *Dryas*. One is *D. octopetala*, the Mountain Avens, which has beautiful large white flowers with golden centres, which adorns the rocks of our Alps and high European mountains, and which extends its area to the Arctic regions of Asia and North America. It is a dwarf plant, creeping over the soil, and is covered with evergreen, beautiful dentate leaves, deep and shiny green on the upper surface, greyish underneath, and it sometimes covers large places on sunny hills or on stony moraines. We have here at Floraire one single plant, so broad and flat that it covers a space of six square feet! The big white

flowers please us from the beginning of May till the end of November. It likes poor and stony soil and a sunny position, and may be increased by cuttings, layers, or seeds, which it gives in abundance. The other is the yellow-flowered one (*D. Drummondii*), an American species growing all over the North American mountains to the North of Canada; the leaves are greyish green, less deeply cut, and the flowers smaller, nodding and yellow. But two other species are known. One is the American *D. tenella* or *integrifolia*, coming from Gröenland, and has very small, uncut or less dentate leaves and smaller flowers. The other is a Tyrolese plant, growing in the Dolomites, and is called *D. lanata* or *vestita*. Its leaves are smaller, less deeply dentate, and white on both sides; its flowers smaller and more abundant than those of *D. octopetala*. *D. lanata* always bears a mass of flowers. It is much dwarfer than the type, and is the best for the wall garden or for sunny places in the rockery.

Floraire, near Geneva.

H. CORREYON.



CROCUS VERSICOLOR, A BEAUTIFUL SPECIES TO PLANT IN THE ROCK GARDEN NOW.

thereof, if further lightened with some well-decayed leaf-soil, seems to suit them admirably, especially if the corms are planted about four inches deep and surrounded by some sharp sand.

It is frequently recommended to plant them much nearer the surface, and while this may be advisable in less well-drained soil than that usually found in the alpine garden, I find it much safer to put them deeper, as there is then less risk of injury in planting other things near them; and when one has a small garden one cannot always devote a special spot to such plants alone, often finding it necessary, and indeed desirable, to mask the otherwise bare patch left by the dormant bulbs later in the season with some other, though more surface-rooting plant, which also serves the double purpose of decorating their site in summer and providing a carpet of foliage through which the welcome flowers may emerge at their flowering-time.

If, as not infrequently happens, we are favoured with a spell of rough weather just as the blossoms are about to open, much damage can be avoided

ana, *sancta* and *scardica obtusa*—all indispensables of a great race—are *not* of the encrusted set. They embrace with utility a beauty and charm, however, that appeals to all; hence, for convenience, their inclusion with the "best."

Mossy Saxifrages.—These are evergreen, and are characterised by dense cushions of, for the most part, pale green foliage, and, afforded a certain degree of root moisture—some, indeed, are virtually sub-aquatic—or a cool rooting medium in moderately good soil, grow with considerable freedom and great ease. At home in border soil of ordinary richness, or growing freely in the cool, sequestered places of the rock garden, or in others where a liberal root-run is ensured them, they should never be planted on dry banks, where the soil is not only meagre, but poor, or in other positions where in summer-time they would be likely to suffer from heat or drought. As edgings of an informal character to borders of bold herbaceous subjects, in handsome groups on the slightly-raised rockery border, or in spreading masses on the so-called

GARDENING FOR BEGINNERS.

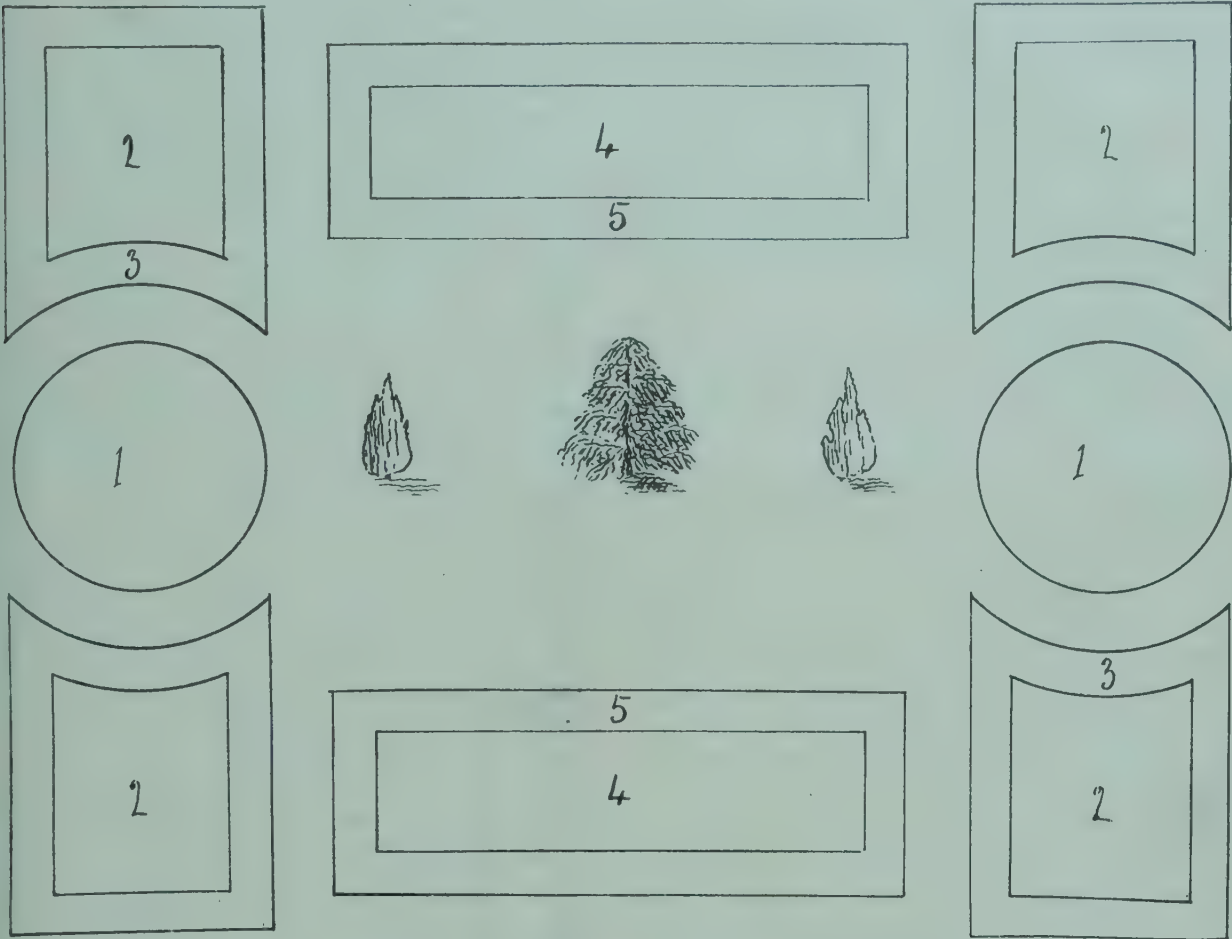
BEAUTIFUL BEDS OF BULBS.

ONCE more the season has come when lovers of bulbous flowers will be very busy ordering

From No. 1 to No. 5 the designs show a very simple but effective arrangement of bulb-borders for a

own tastes. Nos. 1 1, all crimson Hyacinths; Nos. 2 2 2 2, white Hyacinths. The four corner beds, Nos. 3 3, edged with blue Hyacinths, King of the Blues being a suitable variety. Nos. 4 4, Tulip Keizerskroon, and Nos. 5 5, edgings of Tulip White Joost van Vondel. If white La Grandesse and crimson Roi des Belges Hyacinths are planted in the other beds with King of the Blues, all the bulbs will be in full flower at the same time and make a brilliant display. The pointed border, Nos. 6 to 9, is one that often has to be filled at the end of a shrubbery bed, and it may be planted as follows with May-flowering Tulips: No. 6, elegans, scarlet; No. 7, White Swan; No. 8, The Fawn, flushed pink; and No. 9, Picotee, white, crimson edge. No. 10, double Tulips: Toreador, scarlet, terra-cotta edge; No. 11, The Queen, white, yellow base. A round bed is suitable for any position. The other large bed is well adapted for corners of lawns or for lawns of irregular shape. No. 12 may be filled with Tulip Keizerskroon, and No. 13 with Tulip White Joost van Vondel. Long, narrow borders are also numerous. They are often formed near paths, and rows of distinct colours look well in such. No. 14, Hyacinths: Grand Maître, medium blue; No. 15, gigantea, pink blush; No. 16, L'Innocence, white; and No. 17, King of the Blues, deep blue. Another narrow border, such as the one shown, Nos. 18 and 19, may be planted with Jonquils, Campernelle in the centre, yellow; and No. 19 the Silver Jonquil, which has silvery white flowers.

G. G.



1.—PLANS FOR FORMAL BEDS OF BULBS.

the bulbs, preparing the soil and deciding as to the various designs which shall be carried out. Heavy, firm bulbs, consistent with size, are the best. They generally bear one main spike in the case of Hyacinths, and keep fresh for a considerable time when in flower. Very large bulbs of Narcissi, Snowdrops and a few others produce more than one stem of flowers, so that due allowance must be made as regards the distance apart at planting-time. If Narcissi are very much crowded, the foliage and flowers will need very careful staking to prevent them falling apart and lying on the soil.

Preparing the Soil.—A deep, sandy loam is the best for bulbs to grow in. Where such obtains, very little preparation is needed beyond the deep digging of the soil and the addition to it of some well-rotted manure. If it is of a clayey or retentive nature, deep digging is advisable, also a slight raising of the beds. Where old potting compost is available, some of it should be mixed with the original soil, and road grit freely incorporated with it also improves the whole as a rooting medium for bulbs. Fresh manure must never be used. Even if the soil is poor in quality it would be better to be content to deeply work it and not put any manure in. All suitable manure must be well mixed with the soil a little below the layer of soil in which the bulbs will be planted, so that the roots of the latter will come into contact with it later on and at a stage of growth when some stimulating food is required.

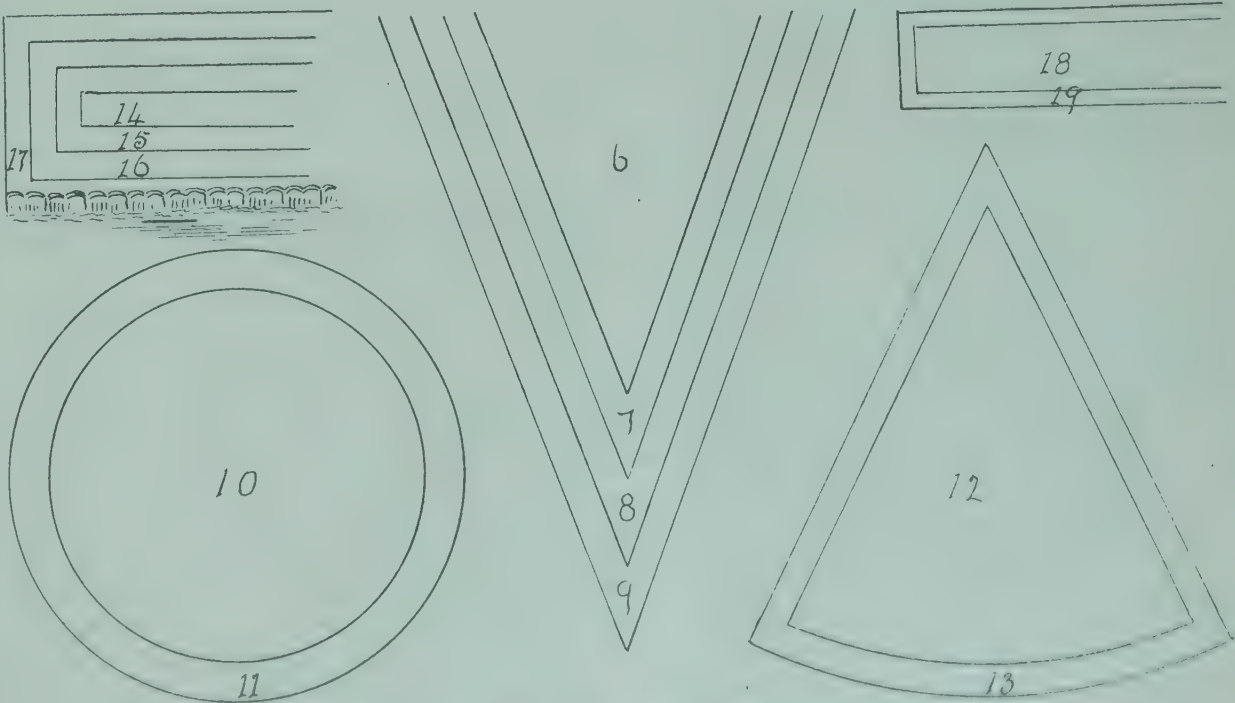
The Plans and the Planting.—Any of the plans may be utilised separately, if necessary, where only one bed is required to be planted with bulbs.

small or medium-sized garden. The arrangement is a formal one, and bulbs only are to be planted (not bulbs and other kinds of plants associated; a set of such borders will be given in due course), so that they will be quite in keeping. Bold planting is the best. Mixed colours may be used in a bed, but each bed or portion of it planted with separate distinct colours looks the most pleasing. The following are given as examples, but readers may vary them, of course, to suit their

AUTUMN TREATMENT OF PRIMULA SINENSIS.

UNTIL a few years ago, I, in common with many other cultivators of these pretty winter and spring flowering plants, thought that a rather high temperature was necessary in order to grow them really well. A high temperature is not needed. I have had plants in a greenhouse covered with sheets of paper during severe frosts, and have seen water frozen on the paper, but the plants were not damaged in the least.

B.



2.—PLANS FOR CORNER AND NARROW BEDS ON LAWNS.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

The Herbaceous Borders.—Every effort should be made to maintain these in as attractive a manner as possible by removing the growths of the earlier-flowering subjects, not entirely to the ground, but shortening back and thinning where necessary, so that they do not hide the more showy plants. Attend to the proper supporting of autumn-flowering Chrysanthemums, Asters (Michaelmas Daisies) and the taller-growing plants, such as Eupatorium purpureum, Artemisia lactiflora (a good plant), Rudbeckia nitida, R. Herbstone, Helianthemum autumnale superbum, Solidago and others.

Gypsophila paniculata.—It may not be generally known that if the inflorescences of this plant (particularly the single one in question) are cut when dry, they may be used the winter through with good effect associated with the many varieties of Everlasting Flowers. These and the varieties of ornamental Grasses should be cut and bunched, and suspended head downwards to dry before the advent of bad weather.

Michaelmas Daisies.—Never have I seen these, and particularly the border devoted to them entirely, look better at this season of the year. The weather has evidently suited them, and the plants are particularly healthy and free from mildew. Should signs of this pest appear, however, spray with a suitable insecticide.

Agapanthus.—These are generally cultivated in pots, and they are especially beautiful when in flower for standing on terraces or near the entrance to the house. If the stock permits, a plant may be tried out of doors, selecting a warm, open position, and give plenty of good loam and decayed manure in addition.

The Rock Garden.

Hardy Cyclamen.—Any time during the next month or six weeks is the best suited for planting the hardy varieties of Cyclamen, and if to be planted on the rockery a sheltered site should be chosen for them, so that the flowers may be protected in the early spring. Where these grow freely under trees and become naturalised, forming large corms, they are indeed a beautiful sight. For the alpine-house they may be potted now in pots or pans, well drained, using a compost of fibrous loam, with plenty of leaf-mould and a little peat incorporated, and coarse road grit. Avoid deep planting, plunge the pots or pans up to the rims in ashes, and shield from heavy rains.

Irises.—The early-flowering species, such as *I. bakeriana*, *I. Danfordiae*, the varieties of *I. pumila*, *I. Histrio* and *I. histrioides major*, should be planted as soon as possible, choosing for them well-drained positions and a porous, sandy soil where the maximum amount of sunshine may reach them when in flower.

The Rose Garden.

Cuttings of many of the Roses, especially the climbing varieties, may now be made and inserted in the open ground that has been well dug and a good sprinkling of coarse sand added. These may be dibbled in, or shallow trenches taken out and the cuttings laid in, 3 inches to 4 inches apart, selecting ripened shoots and making them about eight inches long. Many of the Hybrid Perpetuals, and Teas may be increased in the same way, and will make good plants on their own roots.

Plants Under Glass.

Cinerarias.—Excepting, perhaps, for a day or two after potting, when they may be kept rather closer and shaded, this plant enjoys plenty of air and shade from bright sunshine, and if a cool treatment is afforded, sturdy plants will result that will flower well. When firmly established, they will grow remarkably well if stood on boards or battens under a north wall. The Cineraria is liable to attacks of aphids, which will, if allowed to go on unchecked, quickly disfigure the plants. Water, especially to newly-potted plants, needs to be carefully applied. Keep the plants well syringed and the surroundings moist, especially during warm weather. Avoid overcrowding, and apply a dusting of soot round about the base of the plants, which will help to ward off slugs.

Bulbs in Bowls.—The practice of growing bulbs in fibre has immensely increased in popularity, and the method has much to recommend it, particularly as the whole of the growth can be watched, and from beginning to end the system is cleanly in working. The early-flowering subjects, such as Paper-White Narcissus, Roman Hyacinths, early Daffodils that force with ease and the Duc Van Thol Tulips, should be placed in the fibre at once. Put some large pieces of good charcoal in the bottom; then sufficient fibre for the bulbs to rest upon, so that the tops are within an inch of the rim. Place closely together and fill in firmly with more fibre, just covering over the bulbs. Give a good watering with a rosed can and place away in a cool, dark place until growth has commenced and plenty of roots have formed, when they can be brought out into the rooms, avoiding too bright a position for a day or two.

Fruits Under Glass.

Late Melons.—The weather of late has been most unfavourable for the growth of these. To be successful artificial heat is necessary, and damping down, accordingly, must be attended to, otherwise red spider will be almost sure to attack the foliage. Syringing in dull weather must not be too heavy, otherwise the foliage will become weakened. Air should be admitted, if only for an hour or so, on all favourable occasions, and, when the fruits are swelling, close the house early in the afternoon and take advantage of the solar rays. See that the border does not suffer for the want of water, and give periodical applications of manure-water. When the fruits attain sufficient size, attend to their support by means of nets, thin square boards or other device. By all means have the roof glass outside thoroughly clean, so that the maximum amount of light can reach them.

Earliest Vines.—The earliest-forced Vines that were started prior to the New Year will by now have ripened sufficiently to admit of the shortening back of the wood, which will allow the basal buds to plump up and become better ripened. Where plants have to be accommodated, this is also a great advantage, as it prevents them becoming drawn, and, providing it is not done too early, no harm will accrue.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Carnations.—The planting of beds should be no longer delayed, in order that the plants may be properly established before winter. It is as great a mistake to plant outdoor Carnations deeply as it is to pot them deeply. Place a short stick to the stronger plants, which will prevent them from being twisted about by high winds. A portion should be potted to make up blanks and to plant in groups in mixed borders in early spring. If strong plants, they will each require a 4-inch pot to do them justice. Place the plants where they can be protected from rain, moisture being the means of loss beyond anything else, unless it be rats, which are extremely fond of the plants.

Asters.—The tall species may now or soon be spread out to fill up spaces in front of them made by earlier-flowering plants. Such as *linifolia* (acris), many kinds of *Novi-Belgi*, *Beauty of Colwall*, *amethystinus* and other loose-habited kinds conform splendidly to this treatment, and they look very much better than tightly tied to sticks, however necessary these may be.

The Rock Garden.

Planting.—Any plants to be introduced before winter should be put in without delay, in order that the new roots may obtain a grip of the soil before winter sets in. There is no doubt that a plant established in autumn has a tremendous advantage over one reserved till spring, in some cases the latter not blooming till a year has passed, the Eastern *Meconopsis Wallichii* and *M. integrifolia*, for instance. Early-flowering Primulas should also be planted at once.

Gentiana.—One of the prettiest flowers at this season is *G. Pneumonanthe alba*, which is much to be preferred to the type, one of the rare

instances where a blue-flowered species is less charming than a white derivative. Though common, *G. acaulis* is perhaps unapproached by any other when massed. If left to grow too thick, it, however, fails to flower freely, and every few years should be lifted, divided into small clumps and be replanted a few inches apart. It does best in heavy soil, but with the aid of rotted manure and making the soil very firm it seems to succeed under very opposite conditions. Sunshine is essential at the flowering period.

The Plant-Houses.

Dutch Bulbs.—A batch of Tulips and Hyacinths for early flowering should be potted forthwith, well watered and stood in a cold frame till wanted. The whole of the Narcissi not yet in pots should be potted without further delay. *Telamonius plenus* does very well in 5-inch pots, as many bulbs as can be got in; but the stronger-growing *Sir Watkin*, *Emperor* and others of that type give the best results when 7-inch or 8-inch pots are used, also grouping the bulbs close together. Moisture is essential, and means should be taken to ensure that the soil never becomes dry.

Begonias.—Tuberous varieties in greenhouses are apt to go off at the base of the growths when a spell of cold weather sets in. Careful watering, with a circulation of slightly-warmed air during wet and cold weather, delays the stoppage of growth. Such plants should be stored away in a cool frost-proof place for the winter and not be watered. Plants of *B. Gloire de Lorraine* to flower next month and later must now be permitted to grow unchecked. If there are too many weak shoots in the body of the plants, thin them out to the stronges, and there will be a more extended and a superior lot of bloom. Weak manure-water is a great help, and an occasional vaporising with nicotine is imperative to keep down mite.

The Vegetable Garden.

Onions.—In many instances the crop is ready to lift, it being better to harvest the crop before the foliage has quite decayed than to leave it to be excited to renewed root action by autumnal rains. If there is no means of drying on the ground, the bulbs should be spread out on wooden trellises, or on coarse wire-netting raised above the ground, and left till the bulbs are quite hard, the foliage being removed as it becomes matured.

Celery.—An opportunity may be taken to tie all the advanced heads with a piece of soft bast, breaking off any root growths at the same time. This saves trouble later, when it is difficult sometimes to get weather suitable for working the trenches. If needed, some more may have earth placed about the plants, though there is no need to apply as much as is essential later. Make it rather firm to keep it from becoming sodden with heavy rains.

Parsley.—Lift plants that have been transplanted and grown singly throughout the summer, placing them where they cannot be damaged by intense frost. A late Peach-house suits very well, the plants being put on the surface of the border, and soil or leaf-mould placed about the roots so as to keep them moist and partially active through the winter months. Choose small plants rather than large ones.

The Fruit Garden.

Vines.—Those which are now clear of bunches should be, as far as possible, freed from all parasitic insects. Syringing, or, better still, spraying with hot water often repeated is good. Vaporising with nicotine is also a valuable aid, but hydrocyanic acid is probably the best insect dispeller at the command of the grower. If the ventilators are kept closed twelve hours or so subsequent to the application, 1oz. of cyanide of potassium, 2oz. of sulphuric acid and 4oz. or more of water will be effective, and is harmless to the foliage.

Strawberries.—The planting of a new quarter should be gone on with, lifting the runners, if they have not been previously laid in, with nice little balls of soil, scattering a little fruit manure at each station to be mixed with the earth in planting, and if the soil is in good condition, firming it about the roots. Hoe the ground nicely after planting is finished. Those planted six or seven weeks ago should have all runners removed, the ground hoed, and a half-inch layer of rotted manure and soot spread evenly over all the bed.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

THE FRUIT GARDEN.

APPLE PADNALL SEEDLING.

THIS new culinary Apple was briefly referred to on page 455 of our issue for last week. Since seeing the fruits exhibited at the Royal Horticultural Society's meeting on the 27th ult., when it gained an award of merit, we have visited Padnall Hall, Chadwell Heath, and through the courtesy of Mr. Roberts, who owns the Apple, have seen the trees whence the fruits were gathered. The original tree stands some twenty feet high, and was carrying a very heavy crop of fruit. Several young trees which have been grafted on the Paradise stock were bearing some exceptionally large fruits, and it is evidently a very free cropper. Mr. Roberts informed us that fruits can be used the first week in July, and are in season from then onwards until mid-September. The flesh is firm and of brisk flavour, and the fruits cook exceptionally well. The leafage is very large, and both this and the habit remind us very much of Peasgood's Nonsuch. The fruits, however, are nothing like those of that variety, but to some extent resemble Warner's King.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

HERB GARDEN (E. M. G.).—We are not sure of your requirements. You speak of a "small effective herb garden," and seeing that the culinary herbs are difficult of effective treatment, we are wondering whether, when employing the shortened phrase "herb garden," you had in mind a herbaceous garden. Please kindly say.

KEEPING DAFFODILS AND TULIPS (R. W.).—Whether these will keep for another season depends not a little upon the way they have been treated. If the bulbs have been permitted to fully develop and ripen their foliage, and then lifted and dried for a time, there is no reason why they should not be just as good in 1913 as in 1912. If, on the other hand, the bulbs were lifted in an immature or growing state, it is highly probable that, while appearing sound, no flower-buds will be formed; hence, while producing quite healthy leaf-growth, no flowers would result in the coming year. Everything depends on the treatment meted out to the plants, and of this you tell us but little. If you desire a more definite reply, you must give fuller particulars. Lilac bushes require thinning rather than pruning, that is, the removal of small superfluous shoots or branches and the suppression of all the sucker-like stems that spring so abundantly from the base of the plants. If you do this and remove all old flower-trusses, you will be doing all that is necessary. If, on the other hand, you prune the plants as you would a Rose bush, it is highly probable that you will get no flowers at all in the ensuing spring.

ANTIRRHINUMS AND SWEET WILLIAMS (H.).—We are not sure whether you are referring to the old plants of these, but, if so, we think you would be well advised to discard them and raise young stocks from seedlings or cuttings. If you were to sow seeds of the above named quite early in July thinly on a slightly raised and sheltered border, the seedlings would most likely winter well and be available for planting in February or March. In lighter

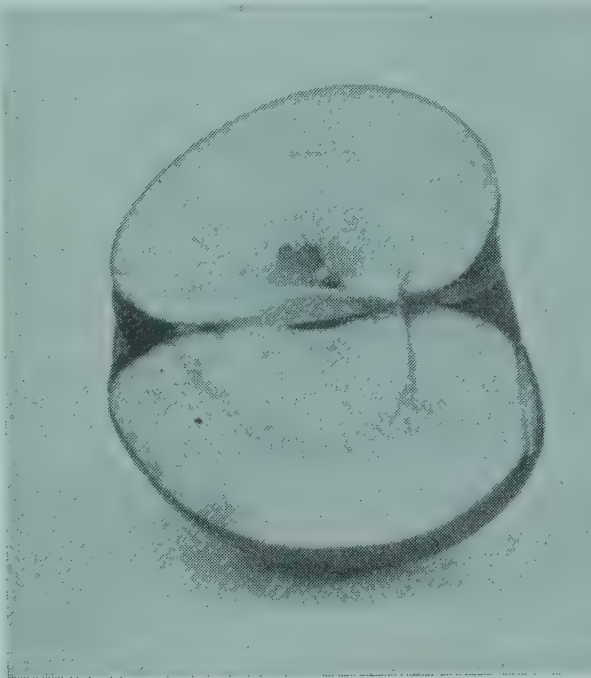
and warmer soils than yours they are frequently planted in September or October, and give little or no trouble. The Scabious, of course, is different, and though savouring of the perennial, with protection is insufficiently hardy for general purposes when left in the open, hence is much best if treated as an annual and sown in spring. If you desire to retain the Antirrhinums in the border, the plants should not be cut down, but merely shortened back and given a mulch of ashes, fibre, or light litter about the base. Delphiniums, Pyrethrums and Potentillas are perfectly hardy without protection, though a mulch of litter to the border would do good. The Sweet William would be best treated as a hardy biennial, sowing seeds in May and June and transplanting the seedlings each year in September or October.

ROSE GARDEN.

CRIMSON ROSES FOR BEDDING (E. A. Z.).—We think you could not do better than plant General Jacqueminot as the Hybrid Perpetual variety, and General Macarthur as the Hybrid Tea. We do not consider the colours of Gustav Grunerwald and Lyon Rose would clash.

POT ROSES IN COLD FRAME (E. A. L.).—It would have been better had you kept the plants nearer the glass; but you could prevent them being spindly by putting three or four sticks around the side of the pots and tying the growths to them. You can then bend the shoots out to any desired shape, and this will encourage basal eyes to start out.

MALFORMED ROSE-BUDS (Mary Maxse).—The buds seem to be those of a hard opening variety. Unfortunately, many Roses that expand freely in France are totally unfitted for our climate. We would advise you to adhere more to British-grown plants, and also to varieties raised in England or Ireland. Of course, we are indebted to our



THE NEW CULINARY APPLE PADNALL SEEDLING. (Half natural size.)

French neighbours for many lovely Roses, but our British introductions will hold their own against any from foreign parts, and as regards French-grown plants they are, unfortunately, often tainted with red rust and other fungoid diseases, which will soon spread to other Roses in the garden.

FRUIT GARDEN.

CHERRIES SPLITTING (T. S. E. M.).—The cause of the Cherries splitting is the spell of warm weather we have recently had, coming after so much rain. The air with the extra heat becomes too humid for ripe stone fruit or fruit approaching ripeness. The splitting will cease as soon as the air becomes drier.

SPRAYING APPLES (T. M. H.).—It is not at all probable, if your Cox's Orange Apple was sprayed with the caustic wash at the proper season and of the proper strength, that any of the trouble shown by the foliage or the stem is due to its effects. The branch sent was badly cankered and, indeed, dead three parts of the way through. Such shoots should be cut out and the wounds painted with lead paint or with Stockholm tar.

APPLES DROPPING (Staverton).—Your Apples are attacked by the Codlin maggot. The best remedy for killing the larvæ of this is to spray the trees in winter with caustic alkali wash. This will kill all insect pests it may come in contact with. The best time to apply it is the first week in February. It also cleanses the trees from moss growth. The wash is poisonous and of a burning nature, and the person spraying the trees must have his clothes and hands protected. It is made as follows: Dissolve 1lb. of commercial caustic soda and 1lb. of crude potash in water. When both are dissolved, mix the two well together, then add three-quarters of a pound of

common agricultural treacle, stir well and add ten gallons of water. The wash will then be ready to use.

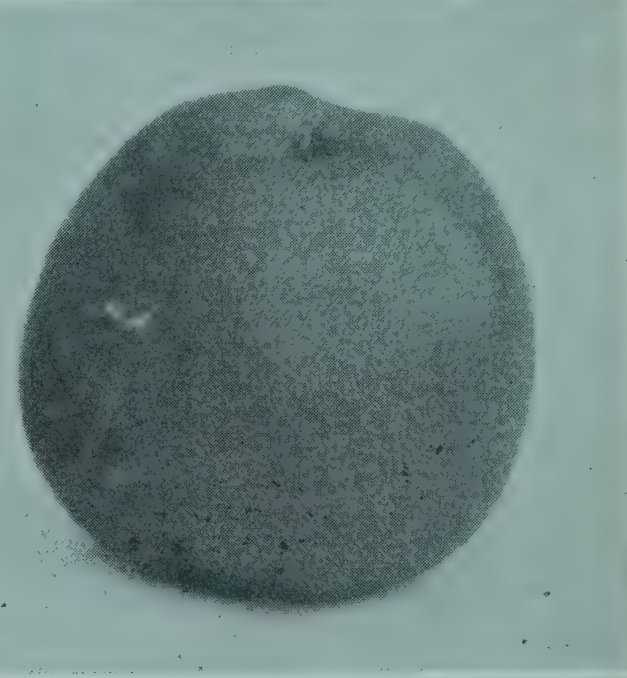
GOOSEBERRIES (D. S.).—The Gooseberries are attacked by one of the rust fungi. These fungi have a rather curious life-history, for the spores which occur on the Gooseberry germinate and attack only Sedges. There is little good in spraying, but if the Sedges could be destroyed during the summer there would be no chance of the spores, which the fungus produces on them, being able to attack the Gooseberry in the spring. The most practical remedy would be to pick off and burn all the diseased Gooseberries as soon as the attack appears, and the leaves as well. The trouble is not usually a serious one.

MILDEW ON STRAWBERRIES (W. C.).—It is hopeless, we think, to try to free the plants so badly mildewed as are the sample leaves sent. The best way is to grub the plants up and plant fresh ones as soon as possible on well-manured and trenched land some distance away. Secure the strongest young plants you can get (and be sure they are free of mildew to start with). You will then have a heavy crop of fine-quality fruit next year. The only effective way of dealing with mildew on Strawberry plants is to watch closely for its first appearance in early spring, and then kill it with sulphur. If this is neglected until it has spread over most of the leaves, it is practically impossible to save the plants or the crops.

KITCHEN GARDEN.

TOMATOES SPLITTING (T. E. W.).—The splitting of Tomatoes is due to a sudden intake of water after a check. A plentiful supply of potash, which may be added in the water used for watering, is an aid towards checking the trouble.

POTATOES AND BLACK SCAB (L. A. H., Staffs.).—The Potatoes are badly attacked by black scab or tumour.



You must at once notify the presence of the disease to the Secretary, Board of Agriculture, Whitehall Place, S.W., and the Board will instruct you how to proceed. There is no known cure.

BROAD BEANS (L. A. T.).—The peculiar purplish spots on the foliage of the Broad Beans are due to the attack of aphids, of which you speak. Aphides excrete a peculiar sugary fluid called honey-dew, and this apparently drops upon the leaves below the point of attack, and subsequently, as a consequence, the spots develop.

ONION FAILURE (Anxious).—It was fortunate you sent with your Onion plants a quantity of the soil. It is in that we look for the failure of your Onions planted out from under glass. The soil to hand was clayey, close, hard, wet, sour, and as unfit for Onion growth as could well be. It would seem as if it had been worked a good deal during the wet winter to bring it into such a state. We cannot see what you can well do now to make matters better. The soil needs worked into it a heavy dressing of fresh-slaked lime, also wood-ashes and plenty of fibre, which seems to be specially lacking. Above all things, another year do not work ground while it is wet. Leave it until in a fairly dry condition. You may try now the effects of liming well and hoeing, but the texture of the soil is indeed bad.

CABBAGE-ROOT MAGGOT (F. P. and Torquay).—The Cabbage-root maggot, which attacks all kinds of Cabbage, Kale, Turnips, Radishes, &c., is extraordinarily prevalent this year in many parts of the country, and is an extremely difficult pest to deal with. It is the grub of a blackish, two-winged fly, rather similar in appearance to the house-fly. It lays its eggs near the Cabbage root, and sometimes upon it, in May or June, and the grubs pupate in the soil, turning to flies after a short period, there being about three, perhaps four, broods during the year.

Some success has attended watering along the roots with an emulsion of carbolic acid, made by dissolving 1lb. of hard soap in one gallon of boiling water, to which is added one pint of carbolic acid, the whole being churned with a syringe until thoroughly emulsified, and then diluted with twenty times its bulk of water. Care should be taken not to touch the plants when watering. Nitrate of soda will sometimes prevent the flies from laying their eggs, and the American growers put a piece of card close to the soil round the plants so as to prevent the fly getting near.

HERB GARDEN (E. M. G.).—The effective arrangement of a herb garden would, to some extent, be governed by space, and grouping the subjects should be the order of the day. You do not say the space which you have at disposal, which is rather important. However, assuming it to be a square, oblong, or oval plot of ground, you cannot do better than arrange so graceful a plant as the Fennel in the centre, and contrasting groups—contrasting in habit and in colour—of Rosemary on either side; or, if you prefer variety, one group of Rosemary and another of Rue, whose glaucous leafage is most effective. At extreme ends of these groups, Balm should find a place, and according to the size of your plot these might include the central batch of groups, arranging them large or small according to the space at disposal. Fronting the Fennel, on either side you might arrange Sage, which, with its great mass of purplish flowers and grey green foliage, is one of the most striking plants of the garden. This plant should dominate in the positions indicated. Horehound and Wormwood are others of effective character to be quite removed from the last by a group of Mint, while for marginal plants you may indulge as freely as you will in Pennyroyal and common and Lemon Thymes in their green or variegated forms. As you have Lavender elsewhere, we omit this, and do not include the large number of such things as Parsley, Basil, Borage and the like so usually raised from seeds, and whose use in the circumstances would be entirely at your discretion.

MISCELLANEOUS.

BOOKS ON PRUNING (L. Anderson).—We think you would find "Rose Growing Made Easy," published from these offices, one of the most useful little books on Rose growing and pruning. For fruit tree pruning you could not do better than obtain "Fruit Growing for Beginners," also from these offices. The "Century Book of Gardening" is also a fine work for the amateur.

POTTING SOIL (F. V. H.).—It is preferable to allow the soil to stand a few days after Vaporite has been used before it is employed for potting purposes. At the same time, soil may be thoroughly disinfected by heating it over a fire in any way that may suggest itself. We do not think there will be any risk in using Vaporite in the way you mention, providing the instructions supplied with it are carefully carried out.

VARIOUS QUESTIONS (F.).—1. The grubs are the young larvae of the chafer. Birds will eat them if they can be turned up for them. A dressing of Vaporite, or some similar soil fumigant, would probably drive them away. Carbon bisulphide injected into the soil would kill them. 2. The curious growths on the *Rhododendron ferrugineum* are galls caused by a fungus. They should be picked off and burned, lest the spores are spread. It is scarcely worth spraying, but potassium sulphide, 1oz. to three gallons of water, might be used if it is wished. 3. Water with a little Clay's Fertilizer or other manure should be applied at intervals.

NAMES OF FRUIT.—C. V. P. Keene.—Beurré Hardy. —J. B. F.—Apples: 1, Hollandbury; 2, Cellini; 3, Hawthornden; 4, Winter Peach; 5, Lord Derby. Pears: 1, Ne Plus Meuris; 2, Beurré Diel; 3, Louise Bonne de Jersey; 4, Beurré Hardy. —H. A. Barclay.—Williams' Bon Chrétien. —J. H. B.—Apple Colonel Vaughan. —W. H.—30, Devonshire Quarrenden; 31, Reinette Grise; 33, Hawthornden. —A. M. S.—1, Williams' Bon Chrétien; 2, Pitmaston Duchess; 3, Marie Louise d'Uccle. —S. S. G.—1, Williams' Bon Chrétien; 2, Beurré d'Amanlis; 3, Beurré Hardy; 4, Green Pear of Yar; 5, Ne Plus Meuris; 6, Louise Bonne de Jersey. —Amateur.—11, Bergamotte Espéron; 12, Conference.

NAMES OF PLANTS.—T. C. C.—1, *Asplenium Nidus* (Bird's-nest Fern); 2, specimen too immature to identify; 3, *Nephrolepis exaltata*; 4, *Asplenium bulbiferum* variety; 5, *Aloe* species, and 6, *Gasteria* species (cannot name these in this condition); 7, *Achimenes coccinea*. —C. Larkin.—*Araujia sericeifera* (*Physianthus albens*). —W. H., Essex.—4, *Asplenium Nidus* (Bird's-nest Fern); 5, *Scolopendrium vulgare* (Hart's-tongue Fern); 6, *Quercus Ilex* (Holm Oak); 7, *Taxus baccata* (Yew); 10, *Stachys lanata*; 11, *Tanacetum vulgare* (Tansy); 13, *Galega officinalis*; 18, *Sempervivum* species; 19, *Sempervivum prealtum*; 27, *Aloysia citriodora*; 29, *Centaurea montana*; 32, *Galega officinalis* variety alba; the remainder were not in a suitable condition for naming. —A. E. S., Oxon.—1, *Callitriche verna* (Water Starwort); 2, *Chara fragilis*; 3, *Potamogeton crispus*; 4, *Elodea* (*Anacharis*) *canadensis* (Canadian Pondweed); 5, *Potamogeton pectinatus*; 6, *Ceratophyllum* species; none of these weeds is harmful to fish, but the water should not be allowed to get too full of them. Raking the weeds out is the best way of keeping them under control. —Amateur.—1, *Clerodendron feticidum*; 2, *Gazania splendens*; 3, *Verbena crinoides*; 4, *Senecio Cineraria* Dusty Miller; 5, *Tropæolum* species, cannot name without flowers; 6, *Lychnis coronaria*; 7, *Kerria japonica*; 8, *Achillea* The Pearl; 9, *Oenothera fruticosa*; 10, *Galega officinalis*. —J. A. P., Glastonbury.—*Browallia viscosa*. —J. B. F.—*Berberis Thunbergii*. —A. J. V.—Tree Tomato, *Cyphomandra betacea*.

BOOKS.

Alpine Flora (continued from page V. August 10 issue).—The illustrations are excellent. They are all in colour, and number 178 drawings of individual plants, reproduced water-colour drawings of the living plant growing in its native habitat. The detail is marvellous. Where all are so good it seems invidious to specify, but plate 46, *Eryngium alpinum*, is a work of art. Plate No. 7, *Aquilegia alpina*, is another delightful piece of work that gives one the idea, as no other illustration I have ever seen of it has succeeded in doing, of the exquisite beauty of this alpine gem, and one could go on picking out gems throughout the whole collection. The backgrounds employed are somewhat unusual, but they have been chosen with an artist's eye to effect and to bring out the colouring of the flower depicted, and in this they succeed admirably. One or two plates are not good, but whether this is due to the heightened colour natural to their native haunts or to deterioration from growing the plants in less congenial atmosphere here, I cannot say; but *Soldanella alpina*, Fig. 131, appears to have pink flowers, whereas I have never succeeded in getting anything else than a mauve shade of blue; and the Grass of Parnassus (*Parnassia palustris*) as illustrated has a distinct pink tinge to the petal. I have never had it any other colour than white with greenish veins. *Rosa alpina* (Fig. 61) is a much brighter shade of colour than I have ever been able to get it. All these are doubtless correct, and the difference is probably due to the fact stated. The book is worth buying for the illustrations alone. The General Introduction follows, and is divided into three parts: (1) The Native Environment of Mountain Flora; (2) The Acclimatisation and Culture of Alpines; and (3) Alpine Gardens and Rockeries. All three are exceedingly interesting and well written, the last giving short descriptions of the best known of the English alpine gardens, such as Friar Park, Henley; South Lodge, Leonardslee; Batsford Park; Warley Place; Ruby Lonsdale, and others. The remainder of the book is taken up by descriptions of the species and their best-known varieties, and this has never been done quite so satisfactorily before. Altogether the book is one that can be recommended to all interested in alpine flora.—H. E. MOLYNEUX

SOCIETIES.

GLASGOW CENTENARY SHOW.

WITH a view to the celebration of the centenary of the Glasgow and West of Scotland Horticultural Society, the directors arranged for a special show, for which handsome prizes were offered, and arrangements were made to hold this in the hall and marquees on the Bunhouse Grounds, Glasgow, on September 4, 5 and 6. The place selected proved very suitable, and as a result of the effort a show of much more than usual merit was held. On the invitation of the directors, the president and council of the Royal Horticultural Society sent a deputation to visit the show, and they awarded several special prizes. The deputation consisted of Sir D. Morris, Sir H. Veitch, Mr. H. B. May, Mr. J. Hudson and Mr. A. J. Gaskell. The show was opened by the Countess of Glasgow in a graceful manner, and Sir D. Morris spoke on behalf of the deputation. Sir John Stirling Maxwell occupied the chair. The display of plants, cut flowers, fruit and vegetables was one of great excellence, though scarcely so large as at the show of 1911, held in the grounds of the Exhibition, but considerably larger than that of 1910.

The non-competitive trade exhibits were of special value, and keen interest was displayed in the splendid exhibits shown. Messrs. James Veitch and Sons, Limited, Chelsea, sent a magnificent display of plants, showing the high quality which characterises their exhibits. It was

composed of stove, greenhouse and other plants, including Orchids, Crotons, new hybrid *Rhododendron* *Streptocarpus* and many other subjects of the most modern types. Royal Horticultural Society's gold medal.

Messrs. Sutton and Sons, Reading, exhibited a fine and effective display of vegetables, flowers, &c., their noted strains, which well deserved the award of the Royal Horticultural Society's gold medal and a similar one from the Glasgow Society.

Messrs. Dobbie and Co., Edinburgh, sent a grand display of cut flowers, among which Collarette and other David Sweet Peas, Roses and other flowers were of grand quality and effectively displayed. The Collarette Dahlias and Sweet Peas attracted much notice. Royal Horticultural Society's cup and society's gold medal.

Messrs. Webb and Sons, Wordsley, Stourbridge, set up a tasteful stand of vegetables and flowers, the whole surmounted by a temple-like dome of Sweet Peas. Gold medal and silver-gilt Banksian medal.

From Messrs. Austin and M'Aslan, Glasgow, there came two effective displays. One of these was a capital show of stove and greenhouse plants, the other comprising vegetables, cut flowers and other produce. Gold, silver-gilt Flora and silver Banksian medals.

Messrs. Hugh Dickson, Limited, Belfast, exhibited a splendid lot of Roses of various classes, admirably grown and staged. Silver-gilt Banksian medal.

Messrs. John Forbes, Hawick, Limited, sent a large exhibit of florists' and other cut flowers and bedding plants, including Pentstemons, Phloxes, Carnations, &c.

Adjoining this was a stand of hardy flowers from Messrs. Cunningham, Fraser and Co., Comely Bank, Edinburgh, in which Phloxes were very prominent. Silver Banksian medal.

Messrs. Clibrans, Altrincham, made a special feature of vegetables and cut flowers in their fine exhibit, showing their excellent strains to advantage. Gold and silver-gilt Knightian medals.

Mr. A. Jones, Killarney, showed a group of Gladioli of the most modern types, including the different late flowering sections. Silver Banksian medal.

An effective exhibit of Pentstemons and other florists' flowers, with excellent Cauliflower, &c., came from Messrs. Williamson, Genmel and Co., Glasgow.

No exhibit attracted more admiration than the glorious Begonias from Messrs. Blackmore and Langdon, Bath, whose flowers were presented in grand form and of wonderful size and colour. Gold medal and the Royal Horticultural Society's cup.

Mr. John Smellie, Busby, showed early Chrysanthemums, Dahlias, &c.

One of the most beautiful and interesting exhibits was that made by Messrs. H. B. May and Sons, Edmonstone, who made a notable display of choice Ferns. Royal Horticultural Society's cup.

Orchids were specially well represented by an exhibit from Messrs. Sander and Sons, St. Albans, who staged a grand lot of the newest hybrids and others of the highest worth.

Carnations of the newest and best types were exhibited by Messrs. Young and Co., Hatherley, Cheltenham (silver Banksian medal), and Messrs. W. Cutbush and Sons, Highgate, London.

Messrs. Malcolm Campbell, Limited, Glasgow, set up magnificent exhibits of fruit and plants. Gold medal and Royal Horticultural Society's cup.

Mr. W. Wells, Limited, Merstham, exhibited early Chrysanthemums, &c.

Other trade exhibits included plants and flowers from Mr. William Leighton, Glasgow; flower stands from Mr. A. Edwards; cut flowers and pot plants, &c., from Mr. D. G. Purdie, Glasgow (silver-gilt Banksian medal); plants, &c., from Messrs. Pringle and Alexander, Glasgow; lawnmowers from Messrs. Ransomes, Ipswich; horticultural requisites from Messrs. A. Cross and Sons, Glasgow, and "Gardenalities" and other firms. Several first-class certificates and awards of merit were given.

The competitive classes were of great beauty, and showed, as a whole, keen competition. Unfortunately, the pressure on our space compels a brief report only.

Cut flowers, as usual at this show, were of great excellence. Pot plants were, as a whole, good, although rather limited. Fruit was very fine indeed, especially the Grapes, and vegetables were grand. Florists' work was also good, and the decorated tables made a good show in themselves.

For the group of plants 15 feet by 10 feet, the first prize, which carried with it a Veitch Memorial Medal, went to Mr. A. Knight, Brayton, with a magnificent group of very fine plants; second, Mr. J. E. Davies, Pallathie, with smaller plants, but a highly-tasteful arrangement.

Mr. Knight was also first for a circular group of plants. Mr. Davies occupying the same position as in the preceding class.

The first prize winners in the other plant classes included Mr. Knight, Mr. Davies, Mr. J. Templeton, Richmond House, Glasgow; Mr. A. M'Millan, Douglas Castle; Mr. J. Swan, Lennoxton; Mr. J. Sutherland, Lenzie; Mr. D. Halliday, Ascog, Bute; Messrs. Malcolm Campbell, Limited, Glasgow; Mr. J. Thompson, Broomfield, Giffnock; Mr. C. Pattison, Linwood, Paisley; Mr. J. Wilson, Dunlbrae, Kirkintilloch; Mr. T. Nelson, Rutherglen; Mr. A. Aitchison, Kilsyth; Mr. P. Wallace, Dumbarton; Mrs. T. Carlyle, Mr. J. Orr, Mr. W. Jenkins, Mr. A. Kelly and Mr. W. Virtue.

The cut-flower classes were of surpassing interest to many, and those for Sweet Peas and Roses drew most notice. In the Sweet Pea collection class victory lay with Mr. J. Fletcher, Auchinheath, Lanarkshire, with a magnificent lot clearly ahead in a strong class. It won for him the silver Flora medal of the Royal Horticultural Society. Second, Mr. J. Paul, Drumbeg, Kilmarnock.

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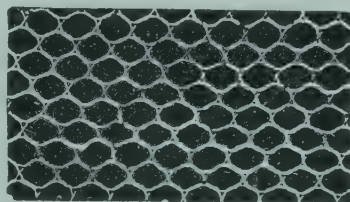
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For eighteen vases of Sweet Peas, Mr. G. Bowness, Busby, was first with very fine flowers; and in the classes for twelve and six Mr. Fletcher repeated his win with the collection. The Sweet Peas were superb.

With Roses, which were wonderfully shown considering the weather, Mr. W. Ferguson, Dunfermline, led for the collection of Roses 8 feet by 5 feet (silver Banksian medal), also for eight vases of decorative Roses. For thirty-six blooms of Roses, Messrs. James Cocker and Sons, Aberdeen, won with a fine lot, including a good bloom of Mrs. Andrew Carnegie, which was much admired. Mr. W. Virtue was first for twenty-four Roses.

Dahlias were a strong section, and for the collection 9 feet by 5 feet Messrs. M. Campbell and Sons, Blantyre, had a well-deserved win with splendid flowers excellently arranged (silver Flora medal). Mr. D. Barbour had the best twelve show or fancy Dahlias. Mr. G. Bowness won for twenty-four Cactus Dahlias, and Mr. J. Smellie was first for twelve vases of Pompons.

Messrs. M. Campbell and Son led for the collection of border Carnations. Mr. J. Smellie won in the open class for early Chrysanthemums with twelve vases of superb flowers, also in that for twelve vases of singles (silver Flora medal). Mr. T. Robertson won in the gardeners' and amateurs' class for twelve vases of early Chrysanthemums. We cannot omit mention of the Pansies and Violas, which were magnificent. Mr. C. Kay won in all the fancy Pansy classes, Mr. J. Paul for twenty-four show, and Mr. J. McGorry, jun., in the open class for forty-eight Violas. Mr. C. Pattison, Linwood, was first for a collection of flowers, and received a silver Banksian medal. Mr. J. Hood, Dalmore, Helensburgh, had the best decorated table. Mr. H. M'Skimming, Mr. J. Hood, Mrs. Bryan, Mr. Hood and others were successful in the other florists' classes.

There was good competition for the table of dessert fruit, and Mr. J. Gibson, Welbeck, worthily won the premier award. Mr. Gibson was also first for twelve dishes. There was keen competition for the prize for eight bunches of Grapes, and Mr. James Dixon, Rowallan, again achieved a victory in this class, also receiving the Hogg Medal from the Royal Horticultural Society's deputation. Mr. R. R. Greenlaw had the best collection of Apples; Mr. A. Harvey, Rozelle, Ayr, the best collection of Pears; Mr. D. Campbell, Capenoch, Dumfriesshire, that of Plums. Mr. J. Ferrier had the best Peaches, and Mr. R. Greenlaw won for Nectarines.

Vegetables were grand, and Mr. J. Gibson, Welbeck, was to the front with his collection, which obtained 70½ points. Mr. C. Shaw, Boquhan, receiving 68. Mr. Gibson was awarded the silver-gilt Knightian medal by the Royal Horticultural Society. Mr. C. Shaw won in two other collection classes, and Mr. J. Devoy in that for amateurs.

ROYAL HORTICULTURAL SOCIETY.

ON Tuesday, September 10, the above society held its fortnightly exhibition in the Royal Horticultural Hall, Vincent Square, Westminster. The hall was bright with late summer and autumn flowers. Dahlias and Phloxes were shown in great profusion, and other flowers that were notably conspicuous were autumn Roses, late Sweet Peas, and perennial Asters or Michaelmas Daisies. Two superb fruit collections, comprising Grapes, Apples, Pears, Plums and Melons, came in for general praise and admiration.

FRUIT AND VEGETABLE COMMITTEE.

Present: G. Bunyard, Esq. (chairman), and Messrs. J. Cheal, W. Bates, W. Pope, J. Jaques, H. S. Rivers, A. H. Pearson, E. Beckett, H. Markham, Owen Thomas and A. W. Metcalfe.

Mr. A. W. Merry, Danesbury, Welwyn, sent a choice collection of indoor and hardy fruit, which reflected the highest credit upon Mr. G. Kelf, the able and well-known gardener. The collection included well-finished bunches of Madresfield Court, Muscat of Alexandria and Alicante Grapes; Pears Clapp's Favourite, Marguerite Marillat and Brockworth Park; Plums Kirke's, Coe's Golden Drop, Autumn Compote, Monarch and Transparent Gage. A good selection of Apples, such as Quarrenden, Worcester Pearmain and Lady Sudeley, was included, also Melons Branch Hill Favourite and Hero of Lockinge, all of uniform size and well netted. A few dishes of Nuts, Filberts and alpine Strawberries completed a really grand lot. Silver Knightian medal.

A very fine and extensive collection of Grapes, Apples and Pears was sent by Mr. H. B. Brandt, Capenor, Nutfield, Surrey (gardener, Mr. T. Heron). Only black Grapes were shown, and the bunches were in all cases well finished and of good colour, but rather on the small side. About three dozen bunches in all were shown, and the following varieties were represented: Diamond Jubilee, Appley Towers, Lady Downe's, Black Alicante and Prince of Wales. Among the Pears we noted capital dishes of Durondeau, Beurré Superfine, Doyenné du Comice, Beurré Diel, Beurré Hardy and Williams' Bon Chrétien; and Apples Allington Pippin, Melon, Wealthy, Ribston Pippin, American Mother, James Grieve and Cox's Pomona. This collection was daintily arranged, the table being traced with autumn-tinted foliage and berries. Silver Knightian medal.

A silver Banksian medal was awarded to Mr. H. V. Woodgates of Old Malden House, Worcester, for an exhibit of Apple Warner's King.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), and Sir Harry J. Veitch, Messrs. J. O'Brien, R. B. White, A. Dye, J. E. Shill, J. Cypher, W. H. Hatcher, W. P. Bound, W. Cobb, J. Charlesworth, A. McBean, F. J. Hanbury, W. Thompson, S. H. Low, W. Bolton, W. H. White and G. Wilson.

A silver Flora medal was awarded to Mr. H. T. Pitt, Rosslyn, Stamford Hill, N., for a grand group of Cattleya hybrids in variety. The collection was admirably staged.

A wonderful plant of Renanthera Lowii, carrying three trailing spikes many feet in length, was shown by Messrs. Sander and Sons, St. Albans. A few Cattleya hybrids and a fine plant of the blue-flowering Vanda cœrulea were exhibited from the same source.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, Middlesex, showed Cattleya aurea and other varieties, Stanhopea graveolens and Dendrobium Phalaenopsis, all overhung with branching sprays of Oncidiums, such as O. macranthum and O. incurvum.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Druery, J. Green, W. J. Bean, J. Hudson, E. A. Bowles, J. W. Barr, G. Gordon, C. R. Fielder, W. Howe, J. F. McLeod, Charles Dixon, W. T. Ware, Arthur Turner, J. Dickson, H. J. Jones, C. E. Pearson, W. P. Thomson, E. H. Jenkins and W. J. James.

Across the western end of the hall Messrs. Carter Page and Co., London Wall, arranged a superb gathering of Dahlias representative of single, Pompon and Cactus varieties for the most part, those of the Cactus section largely predominating. Collarette varieties, too, were seen in plenty, also those of the decorative set, so-called, those of the Pæony-flowered race constituting a superb gathering in the middle. Hence in such a gathering and where all were so good it is impossible to particularise. Suffice to say that all were well displayed in bold basket groups and constituted a most effective whole. Violas in pans also came from this firm, and these likewise were of a representative character and well grown.

The Misses Hopkins, Shepperton-on-Thames, arranged an attractive exhibit of alpine and allied plants on rock-work with much taste and skill.

Hobbies, Dereham, contributed a fine lot of Dahlias, decorative, Collarette, Cactus and others being superbly arranged in stands that displayed their merits to great advantage. The wide range of colour, the brilliant shades of many and delicate tones of others were alike revealed in a group of a most imposing character. Diadem (cerise and white), Rheinkrone (puce and white), La Fusée (crimson and white) and M. Poirier (a variety nearly approximating to blue) were the best of the Collarette set. A front line of choice Cactus varieties received marked attention from the visitors.

Messrs. Barr and Sons, Covent Garden, arranged small vases of well-grown Phloxes, Scabiosa caucasica, pots of Vallota purpurea, together with basket groups of Fuchsias, Chrysanthemums and others. Alpine plants in boxes were effectively shown, also a good strain of Gladioli, of which there were many varieties.

Messrs. Stuart Low and Co., Enfield, showed a few good vases of Roses, such as Rayon d'Or, Juliet, Lady Hillingdon and others being noted.

Mr. A. L. Gwillim, Sidcup, Kent, displayed on boards Begonia flowers in shades of crimson, yellow, white, and pink. The flowers shown had resulted from a seed-sowing made during the present year.

Messrs. W. and J. Brown, Stamford, showed, among other plants, a good batch of Dianthus Napoleon III. and some useful Gaillardias.

Mr. G. Reuthé, Keston, Kent, contributed a choice lot of alpine in pots, Saxifrages, Cyclamen, Campanulas and others; also showy herbaceous subjects, as Crinum, Gaillardias, Scabiosa, Gentiana Andrewsii and others.

Mr. T. B. Bolitho, Trewidden, Penzance (gardener, Mr. Maddern), showed Tricuspidaria dependens (white flowered), Guevinia avellana, Magnolia hypoleuca in fruit, and Styra Obassia, also in fruit; a very interesting set of rare shrubs.

Messrs. G. and A. Clark, Limited, Dover, had a showy lot of herbaceous plants, with Gladioli, Gaillardias and other showy things.

Mr. Amos Perry, Enfield, Middlesex, staged a grand collection of hardy border flowers, including two novelties which gained awards of merit, viz., Helenium autumnale rubrum and Achillea Perry's White. Artemisia lactiflora was shown on a large bank, and Liatris pycnostachya with purple spikes was likewise well shown.

Mr. Charles Turner, Slough, displayed a capital lot of Pæony and other Dahlias. Snowden, a fine white Cactus, and Diamont, rose purple and white, of the Collarette set, were very fine. Union Jack, scarlet and white, was the finest in a large lot.

The Roses from Messrs. W. Paul and Sons, Waltham Cross, were a particularly fine feature, and shown in baskets made a goodly show. Some of the more beautiful varieties Marquise de Sinety, Beauté de Lyon, Paul Léde, Juliet, Elaine, Kaiserin Augusta Victoria, Lady Hillingdon,

Arthur R. Goodwin, Hugo Roller and Lady Downe, all of which were excellent.

Phloxes from Messrs. Gunn, Olton, Warwick, made a good show. Mauve Queen, Pearl, Lady Stewart (pink), Flora (blue and white), William Ramsay (purple), George A. Stroehlein (scarlet) and Ellen Willmott (pale blue, a very fine variety) were among the best. Iris, a rich purple blue, was also fine. Many herbaceous plants were shown in good bunches.

Messrs. J. Cheal and Sons, Crawley, had an extensive table of cut shrubs and trees to demonstrate foliage effects, the selection including hardy Heaths, Buddleias and the like. A select lot of Dahlias included Cactus, Pompon and singles in the best varieties. Both Pompons and singles were particularly neat and effective.

Mr. R. F. Felton, Hanover Square, again showed a particularly good lot of Nelumbium speciosum roseum flowers, which attracted considerable attention. The flowers were most effectively and artistically arranged amid Grasses and Palms, and with their own noble leafage made a most imposing display.

Messrs. William Cutbush and Sons, Highgate, N., showed a very fine group of Dracenas in many distinct and beautiful kinds.

Mr. L. R. Russell, Richmond, staged many excellent varieties of Clematis, Lady Northcliffe, Nelly Moser and Beauty of Worcester being among the more noticeable. Mrs. George Jackman, white, was also very fine.

Mr. James Box, Lindfield, Sussex, displayed a great bank of Phloxes, excellent for the time of the year. Rijnstroom (rose and white), Lindfield Beauty, Sheriff Ivory, Widar, Frau A. Buchner, Iris (deepest violet) and Albert Vandel (the finest blue) were among the best in a particularly fine lot. Gladioli and a large collection of herbaceous flowers were also on view from this firm.

Messrs. B. R. Cant and Sons, Colchester, showed great stands of Roses in many leading sorts, La Tosca, W. R. Smith and Lyon being notable sorts.

Mr. S. Mortimer, Farnham, had a superb lot of show and fancy Dahlias, exhibiting them in excellent form. Cactus varieties were also much in evidence.

Hardy herbaceous flowers and Dahlias in the leading sorts were abundantly shown by Messrs. T. S. Ware, Limited, Feltham. The Pæony and Cactus flowered varieties were most prominent.

Messrs. H. Cannell and Sons, Swanley, filled a complete table with giant single, Pæony and decorative Dahlias, some of the sorts, as White Cloud and Cannell's Favourite, being conspicuous.

Messrs. James Stredwick and Son, St. Leonards-on-Sea, showed a very choice selection of Cactus-flowered Dahlias, of which John Riding (scarlet) and Nantwich (orange) were two of the best.

Messrs. Price and Eyfe, Grove Park Nursery, Lee, S.E., showed a pretty group of early Chrysanthemums in yellow and bronze shades.

Pæony Dahlias, with Pompon and Cactus sorts, from Mr. West, Brentwood, filled one of the long tables, and were seen in considerable variety in all sections. The Pompons were singularly beautiful and neat-looking.

Shrubby Veronicas, with Ferns, were largely in evidence from Messrs. H. B. May and Sons, Edmonton, Eveline (pink), mauveana (violet) and Mont Blanc (white) being among the more distinct. The pretty V. salicifolia was also well shown.

Sweet Peas of a good type for the season were well shown by Messrs. Bide and Sons, Farnham, many excellent vases being staged.

Messrs. George Bunyard and Co., Maidstone, were responsible for a very full table of herbaceous things, Anemones, Aster Amellus, Michaelmas Daisies, Lupines, Delphiniums, Montbretias and other serviceable plants being seen in considerable numbers. Aster Saturn (new), a fine Novi-Belgi form, was particularly noteworthy. Kniphofia Marie Dirkin is a valuable sort with probably Nelsonii blood in it. It is very dwarf and free.

Messrs. Whitelegg and Page, Chislehurst, showed herbaceous plants in profusion, together with a choice selection of Violas.

A miniature rock garden, neatly planted, was staged by Messrs. Fells and Son, Hitchin, Herts. Linum monogynum and Polygonum flavum were two plants of special interest in this little alpine garden.



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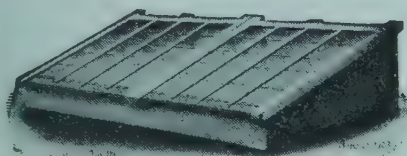
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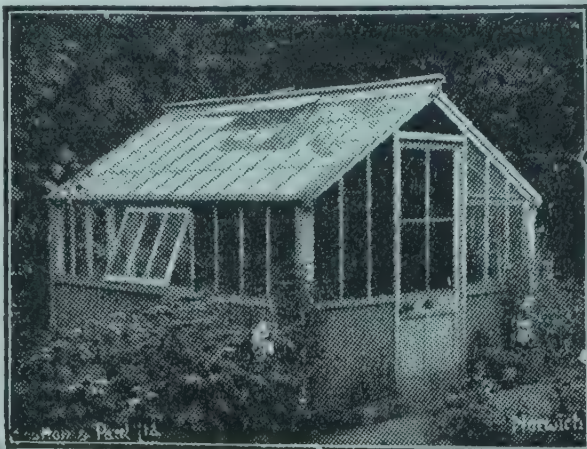
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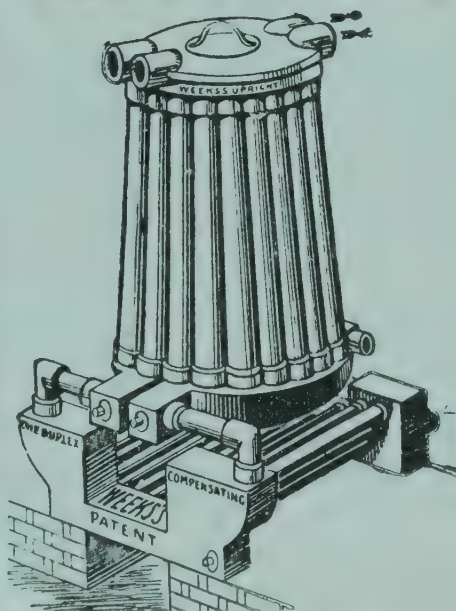
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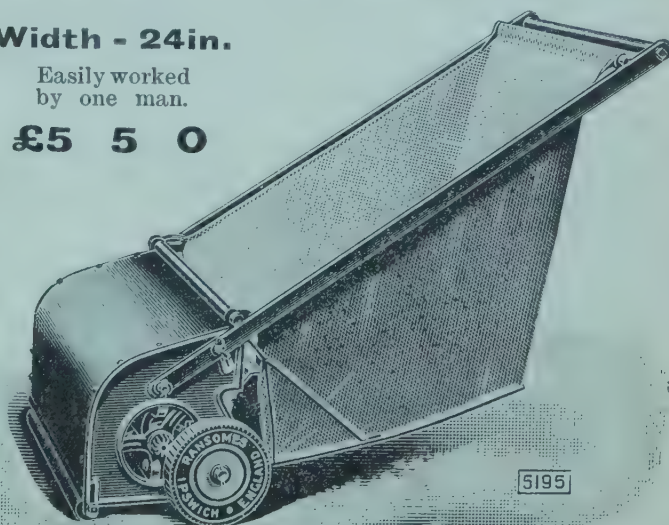
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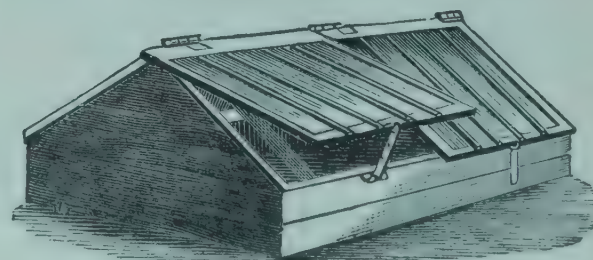
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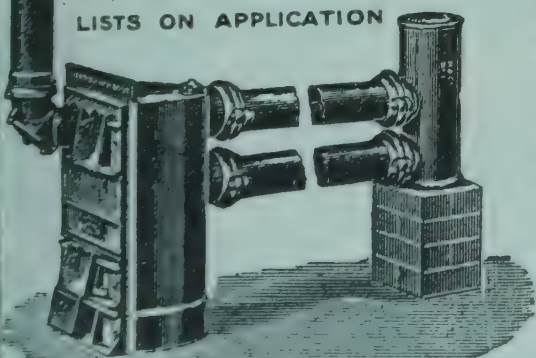
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The Dahlias were judged by a joint committee of the Royal Horticultural Society's floral committee and the National Dahlia Society.

Silver-gilt Flora Medals.—Mr. Box, Lindfield, for herbaceous plants; and Messrs. Carter Page for Dahlias.

Silver-gilt Banksian Medals.—Messrs. Hobbies for Dahlias; and Mr. A. Perry for hardy plants.

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Bronze Flora Medal.—Mr. West for Dahlias.

NORTHERN COUNTIES FRUIT CONGRESS.

On September 4 and 5 the Northern Counties Fruit Congress held a series of meetings in Carlisle in connection with the flower show. The Arcade Hall was used for the purpose, and the subjects dealt with were generally of a technical and useful nature.

Mr. Chisholm gave an interesting demonstration of fruit-bottling. He emphasised the fact that in good years a large quantity of fruit was apt to be wasted, but by adopting a system of bottling, which he illustrated, they could have fruit practically at all times in fresh condition, and much better than that imported from foreign countries. The importation of fruit from foreign countries in bottles and cans was increasing, and cost enormous sums, and he suggested that it was desirable that, instead of obtaining fruit supplies from abroad in the way described, it would be more advantageous for them by a process of bottling to provide home fruits for home needs.

Mr. Little, hon. secretary of the congress, also gave a demonstration of fruit-bottling, explaining the process and exhibiting samples which were three years old. The process as explained by him was a very simple one and inexpensive. All kinds of fruit could be bottled and kept for use for any length of time. He had been asked how to bottle green Peas. It had been found that vegetables were more difficult to bottle than fruit, and the method

by which vegetables could be dealt with was explained in detail as in the case of fruit-bottling.

Mr. G. P. Berry, Horticultural Instructor to the Edinburgh and East of Scotland College of Agriculture, gave a lecture on "Soils in Relation to Fruit-growing." The lecturer dealt with the importance of having soils in a proper condition for fruit-growing, and pointed out the necessity for assisting the helpful bacteria which played such a great part in fruit-growing, and for careful attention to such matters as drainage and ventilation.

Mr. Somers Rivers of Sawbridgeworth read a paper on "The Washing and Spraying of Fruit Trees." Mr. Rivers said that if they wished to get the best results in fruit-growing they must spray. They were now beginning to get experience on that subject, and as a Department of Horticulture had been formed, they might look forward to the State taking the lead in advice and experiment, as was done in all other countries where fruit-growing was pursued as an important industry. That was the right line to take, and if the Government would undertake experiments all over the country, they might gain a great deal of experience which would be valuable to them.

Mr. F. J. Chittenden, Director of the Royal Horticultural Society's Laboratory, Wisley, spoke on "Canker and Other Bark Diseases of Fruit Trees." He gave a clear and comprehensive description of the fruit tree in health, and showed how the disease of canker arose and what the effects were which it produced. Speaking of remedies for the disease, he laid stress upon the desirability of not wounding trees, and of dealing in a scientific and intelligent manner with wounds when they happened to occur. Spraying was among the effective means discovered for checking the disease, but the best remedy was the knife. If a branch of a tree was badly attacked, they should cut it off. If the wound were small, they should take the knife and pare out the diseased part cleanly, and then apply antiseptic treatment. The best thing of all, however, was to prevent the disease from occurring by taking care that the trees were not wounded and that an opportunity was not given for the fungus to make an attack upon them.

OBITUARY.

ROBERT J. BROWN.

It is with feelings of deep regret that we learn of the death of Mr. Robert Joseph Brown, the able gardener at St. Leonard's Hill, Windsor. Mr. Brown was born at Leyburn, Yorks, and had for forty-three years been in faithful service with Lady Tress Barry. Possessed of a sound knowledge

of the art and practice of gardening, he had a wide circle of friends, and was one of the best-known men in the gardening profession. The great feature of the gardens at St. Leonard's Hill, Windsor, which he managed until the time of his death, were the outdoor Camellias grown as hedges and in dells in wild profusion. An illustrated article devoted to these famous gardens appeared in THE GARDEN of April 27 last. Mr. Brown did much towards breaking down the popular impression that Camellias were essentially plants for the conservatory, and not only was he most successful in their outdoor culture, but also raised many varieties of sterling merit, of which Lady Barry (single white, with golden anthers), Sir Francis Tress Barry (a fine single crimson) and W. C. Brown (single deep red) were three of his best acquisitions. Mr. Brown's death took place on August 27, after a few weeks' illness, at the age of sixty-five. His death is the more lamentable as it follows all too quickly upon the happy event of his daughter's wedding at Windsor a little more than a month ago. Deepest sympathy is extended to his widow and family in their bereavement.

"Country Life" for September 14 contains, among other articles, an illustrated account of "The Charterhouse, London"; "Tales of Country Life: A Lame Duck," by Angela Gordon; "Red Deer and Their Ways" (illustrated), by Frank Wallace; "An Aboriginal Kangaroo-Hunt," by Walter Kilroy Harris; "The Hooded Crow" (illustrated), by Frances Pitt; "Autumn on the Solent," by Lady Margaret Sackville; "In the Garden: A Pergola in a Surrey Garden" (illustrated), by William Robinson.

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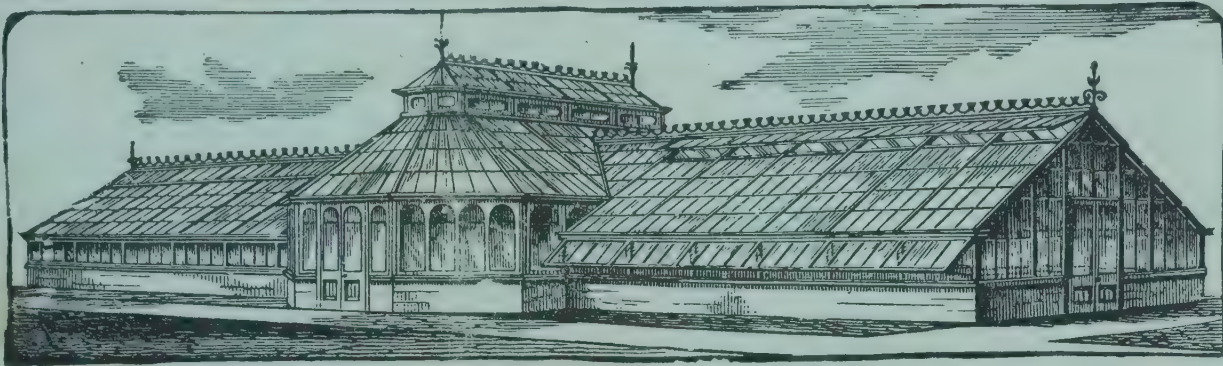
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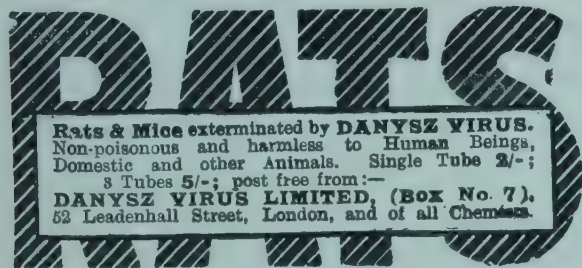
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100 Princes	...	2 6	name, for ...	1 6	
100 Ornatus	...	2 6	12 Iris, German, to		
100 Double Daffs.	...	4 0	name, for ...	6 0	
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100 Pheasant-eyes	...	2 6	name, for ...	1 6	
100 Frank Miles	...	1 6	100 Anemones, Scarlet...	4 6	
			100 Anemones, The Bride	1 9	
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			100 Summer Snowflakes	5 0	
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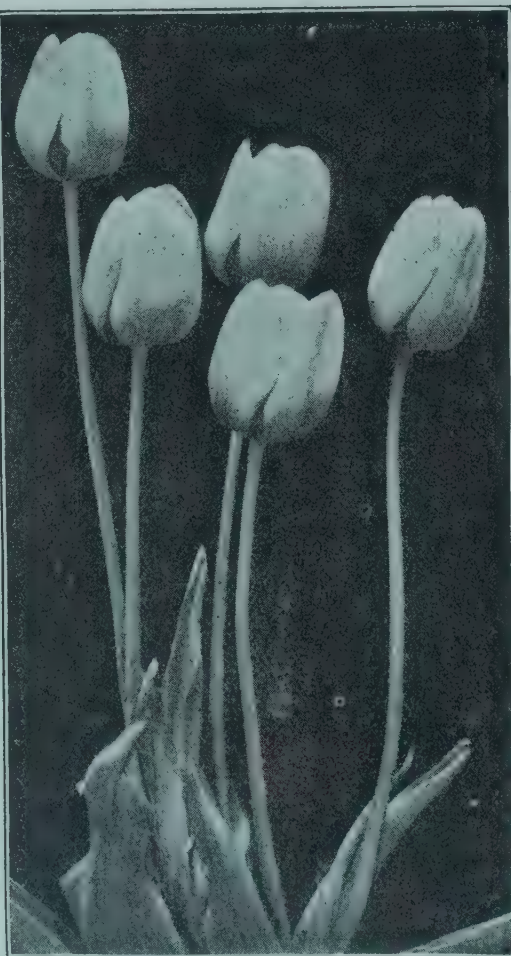
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THE GARDEN.

No. 2133.—VOL. LXXVI.

OCTOBER 5, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

A Simple Autumn Border.—A simple yet effective border that we noticed in a small garden a few days ago is worth recording. This was planted with a double row of the yellow-flowered Chrysanthemum Horace Martin at the back, with a single row of Goacher's Crimson in the foreground, the whole being finished with a foot-wide edging of Alyssum maritimum. Although certain shades of yellow and crimson do not harmonise well, the effect produced in this instance was most pleasing.

Begonia Froebelii incomparabilis.—Those who remember or have grown the original type of this Begonia will find the variety named a decided improvement, as much in the richness and intensity of the colour of the flowers as in their size. A characteristic of the section is the rather woolly, spreading and nearly prostrate leaf-tuft, above which the flower-stems rise to 9 inches or so high. The flowers are of an intense crimson, the buds, like the footstalks, being covered with a soft white tomentum.

The Azalea Garden in Autumn.—Hardy Azaleas are so very pleasing in late spring and early summer when smothered in blossoms varying from palest pink to deep orange that we are apt to overlook the value of these shrubs for their autumnal tints. At the present time the foliage of the Ghent Azalea or Swamp Honeysuckle is in varying hues of bronze, purple and crimson. The Californian species, A. (Rhododendron) occidentale, is one of the best in autumn, and others that may be noted for their autumn tints are flavum, flavum tricolor and sinense.

Rudbeckia laciniata.—This showy Cone-flower has been very good this season, the wet weather apparently suiting it better than that of last summer. This is not surprising, as it is a native of moist thickets in the Northern United States. Growing to 6 feet, 7 feet, or even 8 feet in height, it is showy with its deep yellow, green-centred flowers, which are useful for cutting. For the back of the border or for the wild garden it is an excellent subject, while the long continuance of bloom, which is one of its characteristics, renders it valuable for the small garden as well as for the large one.

Perennial Asters as Woodland Flowers.—The value of perennial Asters or Michaelmas Daisies for colour effect in the woodland should be far more widely known than it is. At Kew the woodland garden is made to look very attractive at this season by the large informal groups of perennial Asters scattered about in various parts of the grounds and under the shade of trees. The Italian Starwort (A. Amellus bessarabicus) is admirably suited for woodland planting. Robert Parker is another variety that is amenable to this mode of culture, and others that are robust and free-flowering

may be relied upon for pleasing touches of colour in the woodland at this season.

A Rock Garden Near the Strand.—As evidence of the intense interest that is now being taken in rock gardening, it is worth recording that an alpine garden is about to be built in the heart of London and only a few yards from the busy Strand. At the north end of Waterloo Bridge, and opposite Somerset House, an open space has for some years been occupied by Bay and other trees in tubs, these belonging to Mr. Buder, a florist of Wellington Street. In association with these trees Mr. Buder is about to make a rock garden, and we understand that the Porthywaen Lime Company, Limited, Oswestry, are supplying the stone, which is Welsh mountain limestone. It will be of considerable interest to note which plants thrive in an atmosphere that is far from ideal for the bulk of alpine subjects.

Our Special Rose Number.—Now that the season for planting Roses will soon be with us, a great many of our readers will require information respecting the best Roses for various purposes. Our next issue will therefore be mainly devoted to the Queen of Flowers, and we think it will be the best and most interesting Rose Number ever published. Among those who are contributing are the Rev. J. H. Pemberton (president of the National Rose Society), Mr. George Laing Paul, Miss Jekyll (who gives a plan of a Rose garden with the Roses arranged according to their colours), Miss Langton (who writes on the best Roses for table decoration) and Mr. H. E. Molyneux, while our regular contributor "Danecroft" will give some particularly useful information about the best Roses for bedding. This issue will be considerably enlarged and beautifully illustrated, and a coloured plate of Rose Duchess of Wellington will be included. The price will, as usual, be one penny.

The American Smoke Tree.—The value of this tree in our gardens is largely confined to its autumn beauty, and it is more than worth growing for the gorgeous tints assumed at this season. Among the many trees and shrubs which are now fast assuming or have taken on their autumn colour at Kew, the glowing foliage of the American Smoke Tree, or Chittam Wood (Rhus cotinoides), is particularly noticeable. The best examples are three tall bushes in a bed near the Victoria Gate. So vivid or glowing are the rich orange scarlet leaves that they might, with the sun shining on them, be almost described as fire-like. Inspection of the many other beautiful shrubs and trees in their autumn garb does not reveal anything quite like the glow in the leaves of this Rhus. Experience in its cultivation seems to show that the colouring is better when the shrubs are planted in light, sandy soil without the addition of manure or rich turfy loam.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose General Macarthur.—I think a likely explanation of this splendid dark Rose failing in some gardens and taking mildew in others, as mentioned on page 446, issue September 7, may be that they are budded on the Manetti stock. I have a long row on the Briar, and they are quite free from mildew and blooming gloriously now (September 23). We have quite discarded the Manetti as a stock, in justice to buyers.—GEORGE BUNYARD, *Maidstone*.

Crinum Powellii.—I should like to confirm all that has been said in praise of the above plant on page 475, issue September 21, and would add a further word on behalf of its noble foliage. Arching over from the centre of the plant, the clean, shiny leaves give it a handsome appearance, especially with several off-growths coming up around the parent bulb as they have done with us. A few of our longest leaves are 5 feet in length. For protection in winter a covering of ashes is placed over it as the foliage dies away.—C. T., *Highgate*.

Crimson Hybrid Tea Roses.—In reply to "Rubrum," page 474, issue September 21, I find the best, and to many the least known, crimson Hybrid Tea Rose is Château de Clos Vougeot. It has flowered in Yorkshire throughout the whole of this sunless summer, and never loses its colour as do the other crimson Roses. It is also deliciously fragrant.—B. K. G., *Yorkshire*. [We agree with our correspondent respecting the colour and fragrance of this Rose. During the scorching days of last year it was the only crimson variety that did not lose its colour with us. Its ungainly habit, however, is a serious drawback for bedding purposes.—ED.]

Hollyhocks.—Early October is a good time to plant Hollyhocks, and they are seen to the best advantage planted at the back of the herbaceous border, on the outskirts of the shrubbery, or a dozen planted together to form a conspicuous group in some corner. They do best in a good, rich, deep, well-manured soil. The noble spikes of rosette-like blooms in such varied colours are very effective from July until long after the autumn frosts. Disease is prevalent among Hollyhocks, more so in some districts than others. One good preventive is one pint of slaked lime, one pint of soot and 1oz. of flowers of sulphur, well mixed together and dusted over the plant, three or four times during the growing season. Early in the day or late in the evening is the best time to sprinkle them.—J. L. E.

Woolly Aphis on Auriculas.—I do not think the woolly aphis, referred to on page 445, issue September 7, really does any harm to the plants, but at the same time it should be kept down, if only for the sake of appearance. I was particularly interested in reading Mr. Savory's remarks regarding the use of methylated spirit, and I can fully bear out Mr. T. Shepherd's statement. For the last three years I have employed it freely at the time of repotting, and later in the season used it around the collars of the plants whenever the woolly aphis appeared, and with good results. Tobacco powder is also effective, while if the frames are vaporised occasionally with XL All, those on the surface are destroyed. When repotting I always endeavour to use a fresh lot of pots, and quite clean crocks for drainage purposes. Auriculas

are growing exceptionally well this year, the cool, damp weather just suiting their requirements. This probably accounts for so many pushing up flower-spikes, particularly among the seedlings. Rose General Macarthur, referred to on page 446, issue September 7, has been covered with mildew for two months; but this is an exceptional season, and hitherto I have never discovered any of the disease on this really grand Rose.—S. T.

A Beautiful New Zealand Tree.—In THE GARDEN of June 8 there is, in an article entitled "Hardy Shrubs with Pea-shaped Flowers," mention made of *Edwardsia grandiflora* (*Sophora tetraptera*). This tree is a native of New Zealand, where it is very common even in the towns, while in country districts it is not an uncommon thing to see whole forests of it. With New Zealanders it heralds the coming of spring, as does the Daffodil in England. The Maori name for it is Kowhai, and the flower is singularly beautiful. It is of a deep gold colour, and the flowers hang down from the branches in great clusters. So popular has the flower become of late years that suggestions that it should be made the New Zealand national flower have been receiving a good deal of attention, and one or two towns now celebrate Kowhai Day as Wattle Day is celebrated in Australia. Kowhai comes into bloom here late in August or early in September. Its appearance is generally simultaneous with several days of wind and rain; hence the term "kowhai fresh" is often applied to bad weather in early spring. During these days the blossoms are considerably blown about, but they come out in full a few days afterwards and bloom for two or three weeks. It is a most beautiful sight to see a Kowhai forest in bloom in September.—MONA MACKAY, *Auckland, New Zealand*.

Good Trees for Autumn Tints.—The spell of dry, sunny weather experienced during September seems to have had the effect of developing the autumn tints to a much greater extent than at one time appeared probable. One of the outstanding features in the Botanic Gardens during the past two weeks has been a tree of the Sweet Buckeye (*Æsculus flava*). This tree changes to a most beautiful golden, almost orange, yellow, and never fails to give a delightful display every autumn. In no year do I remember the common Horse Chestnut giving a finer display. The leaves of this change in instalments, as it were, and patches of deep bronzy red have developed all over many of the trees. *Pyrus lobata*, or, as it is often called, *Mespilus Smithii*, changes in much the same way, the bright patches of red at intervals over the tree having a most pleasing effect. Every leaf of *Acer colchicum* is now changing to a delightful shade of yellow, and it continues to give its display over a fairly long period. In no way behind it in point of beauty and effectiveness is *A. saccharinum*, the Sugar Maple. Other trees with yellow foliage, or changing to yellow, are *Populus nigra betulæfolia*, more golden even than the Golden Poplar itself at this time. The Golden Catalpa must also be included, while the Elms, especially the common field Elm, will presently change their colour and don a garb of a most pleasing yellow. Among the trees with more brilliantly-tinted foliage, the Plum-leaved Thorn (*Cratægus pruni-folia*) stands out conspicuously. The foliage of this is brilliant in the extreme, two finely-grown trees in the park here being the subject of much interest and admiration. When bearing a good crop of their large, deep red haws, the effect is greatly enhanced. *Parrotia persica* and *Rhus glabra*, with their glorious colouring, will presently

take up the story, while the many varieties of Japanese Maples are too well known to require mention.—J. D. HALLIBURTON, *Botanic Gardens, Bath*.

The Merodon Grub in Daffodil Bulbs.—I fear that many Daffodil-lovers may have an unpleasant surprise waiting for them next spring, as this pest seems to be very numerous this year. I have had consignments of bulbs procured from five different growers, and in each case have found one or more grubs in the stock. The chief points of interest appear to be these: First, that bulbs apparently quite sound in the middle of August were found "occupied" a month later. In one case I went over a stock of Citron on September 21, finding five grubs (two in one bulb). On the 27th, on a final overhauling before planting, three more were discovered, although the previous week's search had been very thorough. Secondly, bulbs which for any reason are damp seem to show signs of the grub more distinctly than when dry. Thirdly, that late planting, though in many ways undesirable, does give the grower more opportunity of making sure that his stock is sound. In this case it is not the "early bird that catches the worm." Lastly, I think that buyers should avoid blaming the growers if they find that any bulbs purchased include the grub, for it has been proved to me that the unfortunate grower, pinch he never so hard, cannot be certain of locating the enemy, who may reveal himself to the buyer a week or so later. I should like to add that in the case of twenty-eight bulbs infested, the grub apparently on each occasion entered by the base.—CAPTAIN.

An Experiment with Sweet Peas.—Being fond of experimenting in the growing of plants, and thinking I would try my hand at Sweet Peas, I did so in a small way this year for the first time. In February last I planted ten seeds each of eighteen varieties in boxes. Almost every seed came up and made a strong little plant (I got the finest seed procurable from an eminent firm, and they all came true). I planted them out in butter-tubs from the grocer in very rich, black soil, and stood them in a row on a sunny path in the kitchen garden. They had chemical and liquid manure, and their roots were always kept moist. At the beginning of July they were in full bloom, 8 feet high from the ground, and were in a thoroughly strong, healthy state. I cut off the blooms daily. The third week in July, when the weather turned very hot, the lowest leaves on the plants began to turn yellow, every day more of them, and then the stalk from the ground upwards. I watched them for about a week becoming a little more dried and yellow each day. When this state had reached about halfway up the plants, I took action. The tubs were carried into the deep shade of Cherry and Plum trees, and were stood, two or three together, where their tops just touched the lowest branches. All the buds were removed, fresh earth was put about the roots and the hose turned on to them. The hose was turned on three or four times a day. They were kept dripping wet, and often had a last hosing at nine o'clock at night. Some of the leaves were marked so that I could watch them. At the end of a week I began to notice a change in them, the yellowing ceased, the stalks began swelling and turning green again. They picked up rapidly, and I soon began feeding again. They have remained under the trees ever since, fine green plants. Some of them have run up into the branches, where I find it difficult to get the blooms. *Flora Norton*, *Royal Purple* and *Doris Usher* are still blooming well.—C. L. Cox.

Calceolaria amplexicaulis.—On page 458, issue September 14, "F. G. P." has a note on the above-named plant. He is quite right in strongly recommending it as a good bedding-out plant. I wish to also draw readers' attention to the fact that this *Calceolaria* is excellent for flowering in a dwelling-room window and in a cold greenhouse. When so grown, the plants flower quite early in the season and make a fine display. Many years ago I first saw them growing in sunny windows, and they were certainly very striking. The rooted cuttings may be wintered in a cold greenhouse or in a frame facing the south.—G. G.

Rose Sunburst.—I note your correspondent's remarks *re* this variety on page 474, issue September 21, but I think after he has grown it for another year he will be pleasantly surprised. The peculiarity of Sunburst is that the centre bud for the first flower, or, as *Chrysanthemum*-growers call it, the "crown bud," comes paler than those for the second crop of flowers. It should be disbudded accordingly. Just as *Mme. A. Chatenay* is the most ideal of the older Roses, comprising as it does all that is ideal in the great points of colour, habit of plant, perfume, form of flower and, not least, lasting qualities, so I believe Sunburst will prove the best in Roses of its colour, for, except in the above-mentioned one weak point, it appears to possess most of all those qualities that go to make a great Rose.—LAURENCE J. COOK, *Bush Hill Park, Enfield.*

Euphorbia palustris.—Though many *Euphorbias* are looked upon as dull plants, curious but not very beautiful, there are a few that stand out during their flowering season as some of the showiest of garden plants. Such is the large-growing species shown in the accompanying illustration. This season everyone who caught sight of the mass of brilliant yellow bracts asked, while still far from the plant, what that fine thing was. The tone of yellow is singularly vivid in sunlight, just the colour of a wash of pure gamboge while still wet, and the picture shows what a mass of flower-heads the plant bears. It is widely spread in Europe as a wild plant, but rarely seen in gardens. Mine was given me by that accomplished and generous gardener, the late Mrs. Robb, one of the many good things that she gave me, and now remind me of happy days in her wonderful garden at Liphook. Although the specific name suggests the bog garden for this plant, it thrives well in the ordinary border, and mine reaches some 4 feet in height when in flower, exceeding it considerably when the side growths spring up and reach above the seeding heads. That, perhaps, is its one fault—it takes up so much space after flowering by making so many and such long, barren side shoots. I cut away a great many of them, and the plant has never shown any resentment for such treatment as yet.—E. A. BOWLES, *Waltham Cross.*

FORTHCOMING EVENTS.

October 8.—Royal Horticultural Society's Meeting and Exhibition. Lecture at 3 p.m. by Dr. Charles Crowther on "The Influence of Atmospheric Impurities on Vegetation."

October 9.—East Anglian Horticultural Club's Meeting. Lecture by Mr. C. H. Fox on "Deciduous Flowering Trees and Shrubs."

October 10.—Royal Horticultural Society's Autumn Show of British-grown Fruits (two days).

October 11.—Annual Conference of Affiliated Mutual Improvement Societies at the Royal Horticultural Society's Hall, Westminster.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.

IT is pleasant to be able to take up one's pen again and to jot down a few notes on such a topic; it was even pleasanter to be able, after nearly two years' existence without a garden, to start growing Roses again.

During the gardenless period one tried to realise that it was "better to have loved and lost than never to have loved at all," but it did little to compensate one for the wrench of parting with a garden that may have been a little one. Still, in my case it was particularly my own, having grown out of the side of a bare chalk hill. But that period is behind me. It had the advantage of compelling me to start afresh, and, with

ton in a garden that was formerly a gravel-pit, but with such soil as it possesses of the very best.

All plants were pruned particularly hard, and with a few exceptions, where to do so would be contrary to experience and practice, I do not think 3 inches of growth was left above ground. With these preliminary remarks as to the general circumstances, I hope to be able to give readers my experience of all the newer Roses introduced during the last three years by the leading raisers in Great Britain and Ireland, as well as the best of the Continental raisers. I have also had the additional advantage of visiting this year the nurseries of many of the raisers and seeing the Roses and the new seedlings growing at their birthplace, an important factor when dealing with new varieties. I will first of all deal with the Roses capable of



EUPHORBIA PALUSTRIS, A RARE SPECIES, IN MR. E. A. BOWLES' GARDEN.

the help of some of my Rose-growing friends, to stock the new garden with only the choicest and best.

Planted in 1911, the Roses came through the winter without a single loss, and growing in maiden soil (the top spit of an adjoining meadow—that desideratum that is often asked for but so seldom obtained), they have done wonderfully well; and although the year has not altogether been ideal from the Rose-grower's point of view, yet we in Hampshire, with the exception of the extreme earliness of the season (I had Roses from April 19 onwards, *Rosa sinica* Anemone on a fence facing due east being in full flower on that date), have had little cause to grumble. The flowers, having been grown without a check, were of high quality and splendid colour.

The newer Roses, of which I had rather more than two hundred plants, did particularly well, and if these notes appear somewhat highly coloured, it will be due to that reason and that reason only. I shall endeavour, as far as I am able, to set down the behaviour of each plant as grown in Southamp-

ton producing exhibition flowers, and then the garden and decorative varieties, including climbers.

Southampton.

HERBERT E. MOLYNEUX.

(To be continued.)

ROSE IRISH FLAME.

MESSRS. A. DICKSON AND SONS of Newtownards first gave us the wonderful Irish Elegance, which even now is one of the most popular of single Roses, and now they have produced this gem, which will be sought after for every garden. It is really remarkable that two gold medals should be awarded to two decorative Roses this year, and it speaks much for the popularity of this type of flower. As its name implies, Irish Flame is of that ruddy hue which among Roses, as indeed any flower, is ever welcome, and I can imagine that in the near future it will be used for table decoration, in conjunction with Old Gold and perhaps *Mme. Edouard Herriott*, something in the same way as *Lyon Rose* and *Irish Elegance* are used to-day.

DANECROFT.

MAKING A SMALL JAPANESE GARDEN.

[In Answer to a Correspondent.]

To make a small Japanese garden upon a plot of ground 24 feet by 20 feet is possible, but it will be extremely limited. If the ground is level, it will be well to throw up the soil after it has been thoroughly trenched, in order to secure more surface space in forming the design. We will assume that the centre, or thereabouts, is the present ground-level. If so, cast up the soil from one part to the other, so as to form a mound of earth of 2 feet or so in height. This will leave an excavation that can be arranged as a small pool. Do



AN INFORMAL GROUPING OF JAPANESE WINDFLOWERS FRINGED WITH HARDY CYCLAMEN. (See page 501.)

not attempt to make the design at all uniform or in any way balanced. The more informal it is, the better will be the effect when completed. It may be possible to fix a stone Japanese lantern to add to the effect. In the pool of water a small fountain-jet will add to the effect.

Upon such a limited space none but the smaller-growing and pigmy plants will be possible. For planting out, a few of the dwarf Abies or Pinus family might be used. One weeping tree, such as a standard of *Sophora japonica pendula*, would be effective. There might be room for a small plant of *Sciadopitys verticillata* (the Umbrella Pine of Japan); this requires moisture and a peaty soil. A few plants of *Iris Kämpferi* would be a distinct advantage. These should be near to, but just elevated above, the water. Upon such a space there would be no room whatever for any grass; in fact, a lawn does not enter into any but the largest arrangements. Some flat, informal stepping-stones for stepping upon, and nothing else, so provided, should be used. A few small plants in vases will, in such a limited space, be quite in keeping with the surroundings. Small Pomegranates and some tiny Acers in pots or vases will be suitable, so also, with care, will the *Retinosporas* and the Japanese Larch (*Larix leptolepis*). ANGLO-JAP.

THE FLOWER GARDEN.

SOME DAFFODIL CRITICISMS.

MAY I be allowed to make some comments on several matters contained in the interesting articles on Daffodils in your Special Bulb Number? First, I would like to endorse the commendation of Heroine by "Poeticus," as it seems to endorse my opinion, expressed last year, that "it is something better than an improved Albatross." Secondly, I challenge Mr. Shea's statement, "there exists now for the new-comer only the very barest and unlikely

if one of the most beautiful flowers (for I entirely agree with Mr. Jacob's commendation of Avalon) can come from flowers such as were its parents, why cannot the tyro hope still to score some similar success? This year I secured a wonderful blood red flat eye and a most up-to-date Poeticus from Mr. Engleheart, and I have some two hundred seeds from their pollen. Why may I not hope for something really good from such pollen used on thoroughly up-to-date flowers?

Again, there is always a possibility of getting a good thing from the crosses that might be thought to have been thoroughly worked out, as evidence my own third cross, producing King Cup from Golden Spur $\times$ ornatus. No; the would-be hybridiser need not be put off from despair of producing something good, but let him start with good up-to-date flowers, not necessarily the very expensive ones, and work systematically, not being frightened by the work of "the men who had so very long a start," but let him take to heart the lesson taught by the play of "Milestones" and benefit by the past experience of others. By all means let him keep the most accurate statistics of his crosses and the results, as, if for nothing else, it lends interest to the hobby, and undoubtedly there is much in Mr. Shea's view that the compilation of statistics may be most valuable for determining points which are dealt with by himself and Mr. Jones.

I think Mr. Shea is nearer the mark than Mr. Jones as to the reason of the failure of so many crosses. I cannot quite follow Mr. Jones when he says "most of the pollen dried and dropped off before absorption." My idea has always been that if the stigma is in a receptive state, which means that it is sticky, when once the pollen has attached itself the impregnation has taken place, and no amount of wind will prevent the inoculation of the ova, and only a most abnormal amount of heat will prevent it; but if frost intervenes it is, to my mind, quite another matter, as in that case the whole fertilising powers are killed by the sun bursting the frosted anatomy of the style. This year I made some four hundred and fifty crosses, mostly on a small number of flowers in each case, and I obtained seed from about two hundred. Many of the crosses were on, and by pollen of, my own seedlings, many of the first year's flowering, and therefore entirely unknown quantities. I have analysed the results of the work on named flowers, but not my own seedlings, and the result is that out of one hundred and twenty-six trumpet crosses forty-seven were successful and seventy-nine failed, out of seventy-three Medio crosses four were successful and sixty-nine failed, and out of ninety-eight Parvi crosses ten were successful and eighty-eight failed. I have not taken my own seedlings, as without considerable labour of reference I cannot be sure of them being trumpets, Medio or Parvi. Roughly speaking, my results seem to support Mr. Shea's and Mr. Jones' suggestion that the trumpet flowers were more fertile this year, be the reason what it may.

One thing I noticed was the fecundity of maiden flowers. I hoped to restrict the number of seeds this year, as I find my stock of seedlings getting beyond my power to attend to; but owing to this fecundity I found a large number of my maiden seedlings that I had not worked on with pods full of seeds, and could not resist saving and sowing them, and thus adding largely to my stock of seed. A considerable number of them were late flowers.

I think the hope of the present-day hybridist, both among the veteran and the young recruits,

chance of producing new varieties at all comparable with those created by the men who had so long a start." With the concluding words of his paragraph, "they cannot now be overtaken," perhaps one must agree, as they have such an accumulation of good things that in a number of good things they must continue to lead, but I contend that there are plenty of chances of producing new varieties comparable with, and better than, those created "by the men who had so long a start." It must be remembered that, to begin with, the pioneers had to experiment with flowers of inferior size, substance and colour, and the present hybridiser has almost too many flowers that years ago would have been considered by the pioneers almost impossible of attainment. Mr. Shea's cry is the cry of despair, and is not calculated to encourage the would-be hybridiser, as the joys of a statistician are hardly those to attract the young hybridiser! I gladly welcome Mr. Shea's desire for statistics in our mutual hobby, but do not hold out that as the *only* inducement for continuing or becoming a Daffodil hybridist!

The article on Avalon seems to me to contain a most happy answer to Mr. Shea's pessimism. This beautiful flower is stated to be the result of crossing Beacon with a Poet. Now, surely

is the new seedling flowers. From quite an indifferent seedling from Almira with Thelena pollen I had a flower this year which I fondly hope may be considered to be "comparable" with some of the flowers in the present first flight. *Nil desperandum*.

C. LEMESLE ADAMS.

Pendeford Hall, Wolverhampton.

SEASONABLE NOTES ON CARNATIONS.

Plants in Beds.—It is well within the bounds of possibility that all the Carnations rooted from layers put down in July and August have not yet reached their permanent positions, and, where this is the case, it is strongly urged that the work shall be accomplished immediately. In light, open soils which are pleasantly warm, the planting may be done later than on colder, close grounds; but in no case is it wise or desirable to defer the work any longer than is absolutely necessary, for the simple reason that the later it is finished, the less opportunity will the roots have to secure a satisfactory hold before the winter. Plants that were placed in their positions in the beds and borders a short time back will be established, and unless the conditions are peculiarly unfavourable, it is improbable that they will cause the grower the slightest anxiety or worry through the winter. It is, of course, more than probable that some of them will lift from the ground in severe frosts; but this is a contingency which the cultivator expects, and therefore he is ready to remedy it by replacing the plants as required.

Hoeing.—There are few, if any, details of cultivation in connection with these delightful flowers of more importance than hoeing, and, provided it is done carefully when the soil is in suitable condition, it is impossible to do it too frequently. In the first place, it opens up the surface of the soil, and thus facilitates the admission of rain, which is promptly followed by the invigorating and sweetening fresh air; and, in the second place, it positively prevents the establishment of weeds. It has been suggested that care shall be used in carrying out the work, and this fact must be impressed, since carelessness will certainly result in some of the plants being injured by the blade of the tool, and others will probably have their roots disturbed. Either condition of affairs is prejudicial to the continued satisfactory progress of the plants. It is essential, too, that no attempt shall be made to hoe when the ground is wet, but at any other time it may advantageously be done.

Surface Manuring or Mulching.—Where there is a plentiful supply of short, sweet manure, a surface dressing or mulching beneath the Carnations cannot prove otherwise than beneficial to the plants. The first thing is to loosen the surface with a hoe, fork, or even a bluntly-pointed stick, according to convenience, and then spread down the covering material. It is not wise to allow this to settle down into a close mass, as it is rather prone to do after heavy rains, as it then becomes impenetrable by water and air, thus creating a particularly undesirable condition of affairs; but this is easily obviated by occasional loosening with a small

fork or a pointed stick. In an open state it presents no obstacle whatever to the passage of rain-water, and if this can pass through, it is certain that fresh air will follow. There is, then, the additional advantage of the food virtues in the manure being carried down into the soil for appropriation by the roots of the plants when they are active.

Plants in Frames.—It has become the excellent practice to have a reserve stock of plants, especially of the choicest and yellow-ground varieties, in small pots in cold frames, because the losses in the winter may be rather serious, and are almost sure to be so with those of tender constitution in low-lying gardens where the soil is on the strong side. Among the plants thus treated, reasonable attention will ensure them passing the winter in perfect safety. The danger with amateurs lies in coddling. In no circumstances is this permissible. The more fresh air that can be admitted to the frames, the better the plants will thrive, and to this end the lights should be off whenever the weather will permit of it, and must never be quite closed, even though there be frosts or heavy rains. The latter do more harm than the former; hence the importance of some protection when they are falling. F. R.

BORDER FLOWERS IN EARLY AUTUMN.

THE illustrations on this page and page 500 should prove of special interest to those who garden for

flowers, with sword-like foliage, are those of *Watsonia Ardernei alba*. These plants require much the same treatment as *Gladioli*, and succeed best when grown on a warm, sunny border. The flowers of both *Phloxes* and *Watsonias* are thrown out in bold relief against a dark background of hardy shrubs. *Gladioli* of the *brechleyensis* type might be used instead of *Watsonias*, as they flower about the same time. When planting the *Phloxes* in late autumn, room should be left for the *Gladioli* or *Watsonias*, which would be planted at the end of March or early in April. This is a simple effect that might well be carried out in many gardens where flowers at the fall of the year are appreciated.

EARTHENWARE RINGS FOR BULBS.

IN THE GARDEN of June 14, 1884, page 485, there is an article on earthenware rings for confining bulbs in borders. Can any of your readers tell me whether anything came of this suggestion? Were these rings ever manufactured and put on the market, and, if so, by whom? as it strikes me that many amateurs would, in the present day, be glad of such arrangements, if at all suitable, for the better regulating of their borders. J. P.

[As this is a subject that will be of general interest just now, we reprint below the article referred to by our correspondent.—ED.]

EARTHENWARE RINGS FOR BULBS.

LIKE many other amateurs, I am fond of growing bulbous plants, but, owing to the fact that I have



A BORDER OF PHLOXES AND WATSONIAS FOR EARLY AUTUMN EFFECT.

September and October effect. The illustration on page 500 depicts an informal grouping of Japanese Windflowers (*Anemone japonica*) fringed with clusters of low-growing hardy Cyclamen. This happy effect is taken from Gunnersbury House Gardens, where Mr. Hudson, with his usual gardening skill, succeeds in obtaining beautiful colour blendings with autumn flowers and foliage. Japanese Anemones are particularly useful for growing under the shade of trees, while the autumn-flowered Cyclamen, *C. europæum* and *C. hederæ-folium*, revel under such conditions.

The illustration on this page depicts a border of *Phloxes* and *Watsonias* at Kew. The *Phloxes* are mainly white varieties, but pale blues and pinks are also included. The tall spikes of white

limited space, and must needs grow them in mixed borders, and that when grown there their exact whereabouts often get forgotten, and in the moving of other plants and the necessary work of the border the clumps get "dug" in half and the bulbs scattered over the border, producing a most untidy effect, and that some bulbs like the *Tritonias* have a disposition to wander and come up in the heart of another plant, I gave up bulb-growing in despair till I thought if I got something that would be strong enough to resist the blow of a spade, and at the same time confine the bulbs to the space allotted to them, I might perhaps be able again to see my favourites in their old quarters. I went to our brickyard and asked the foreman when he was making 9-inch drain-tiles to cut me

off as the clay form issued from the machine 6-inch lengths of tile, and to burn them specially. On receiving them I at once planted my Tulips, Lilies, &c., in clumps in these rings; the result has been most satisfactory. The rings are plunged into the border 2 inches underground, and the bulbs planted in them and filled up, and they are safe. Their locality does not need marking, for when the spade is at work the ring proclaims its existence, and so is easily avoided. At the same time, being an inch thick, and supported on all sides by the soil, it cannot be broken easily. The advantages are that bulbs needing peat can be grown in a mixed border by merely filling up the ring with the necessary soil; the sides of the pot or ring prevent wandering roots from eating up the food intended for the bulbs.

Let us suppose that five Tulips are put in the first instance into a 9-inch ring; they can be left with advantage two years at least, by which time the size of the clump will proclaim, by the space it occupies, that the ring is pretty full of bulbs, and in the autumn, when the borders are gone over, the ring is just turned out with a clod of earth filling up its calibre with the bulbs which are shaken out, the largest returned, and the rest are stock in hand for the nursery or for giving away. As the rings are straight-sided and have no bottoms, the bulbs stand crowding well, as they can root downward without interruption into the border, and the usual autumn mulch feeds them as well, and the work of planting must not be done more than once in two or three years. I have now had others made of 6 inches and 4 inches in diameter for smaller clumps and smaller bulbs. The smallest size is used for edgings of small bulbs, such as Crocuses, Snowdrops, Squills, &c.; the larger ones do well for Lilies, Tulips, Hyacinths, Gladioli, &c. The 9-inch rings cost me 4d. each, and with ordinary care will last a lifetime; the 6-inch cost 13s. a hundred, and the 4-inch 6s. 6d. a hundred. They can be made at any brickyard, and if a greater demand was had for them, they might be made much cheaper, as they take up little room, and the three sizes can be nested together and take up only the room of the 9-inch ring, an advantage where they have to be sent a distance. They economise bulbs, as each little corm or bulb is easily found and preserved, and as the whole clump comes up with the ring, no stray bulbets get into the border to disfigure its neatness next season.

Nayland, Colchester.

H. D. PALMER.

ACHILLEA PTARMICA PERRY'S WHITE.

THIS is a new variety possessing many good qualities as a garden flower. It is a seedling of *Achillea Ptarmica*, with double snow white flowers about an inch across and produced in the wildest profusion. It is much larger-flowered than

either Bouquet or The Pearl, and its flowering season extends from June till late autumn. Growing over three feet in height, with stiff, rigid and much branching stems, it is without question a most useful subject for cutting or decorative purposes. This acquisition was raised at Mr. Amos Perry's Hardy Plant Farms, Enfield, Middlesex, and received an award of merit recently when shown before the Royal Horticultural Society.

A PAVED LAVENDER WALK.

IN Old English gardens Lavender walks formed one of the most pleasing features, and those who are fond of old-world effects could not do better than introduce this feature in gardens of to-day.



ACHILLEA PTARMICA PERRY'S WHITE. A NEW DOUBLE-FLOWERED VARIETY INVALUABLE FOR CUTTING AND DECORATIVE PURPOSES.

Nothing could be more simple. Cuttings of Lavender root readily in the autumn if prepared from young wood and inserted in free, sandy soil under hand-lights, when they will be ready to plant out in the spring. Cuttings, when taken with a "heel," also root in the open in sandy soil, but the method of using a hand-light ensures success, and is generally preferred. The paved Lavender walk seen in the illustration on page 503 is a delightful feature of the gardens at Regal Lodge, Kentford. The bold lines of Lavender are edged with Thyme, while between the paving-stones are many little tufts of dwarf Campanulas, chiefly *C. pulla* and the variety *Miss Willmott*.

THE ROCK AND WATER GARDEN.

ROCK GARDEN PLANTS THAT FLOWER IN EARLY AUTUMN.

EVERYTHING—be it Rose, or alpine plant, or what you will—has its season, and when that is past, when the fulness of the beauty is gone, what remains, welcome though it be, constitutes but fractional parts of the greater whole we remember so well. Of no section of plants is this more true than that we know as alpine, and which inclines to yield of its fuller wealth of beauty and variety before the year has more than half run its course. Those that come to us after that time, despite their individual charms, are but few and far between, disjointed members as it were, of a great flowering chain that had remained unbroken for months.

The passing of June, however, is usually the signal for the snapping of the last link in the chain, and though by that time alpinists should have had a good innings, yet they appear never to be quite satisfied—to be wishful for more of the wealth of spring, even amid the breath of parched July or even later. That this is the condition of things existing in most rock gardens at the time indicated few will attempt to gainsay, though it is a moot question, I think, whether the fault is not a little on the side of the planter, who, encouraging the greater flower wealth of spring and early summer, discourages—if all unwittingly—the lesser wealth that follows by and by.

In the earlier months of the year we see the incomparable flower pictures of alpine Phlox, Aubrietia, Dianthus, Candytuft and so on; but is there one among the number to surpass a spreading, well-flowered mass of the rosy pink *Convolvulus althæoides* of July? But we do not see it, or certainly only rarely, and then not always in good condition. It may be—indeed is, probably, that our rock gardens are not big enough for all—not big enough to provide representative pictures of all that is good; hence the comparative rarity of some. At Friar Park I have seen

this unique subject in its fullest glory; but there is elbow-room there and the owner knows what is good. There is room, too, at Wisley, and plenty of it just now, and a few yards square of the plant well in flower would be worth a day's journey to see. Moreover, it would give fresh impetus to the cultivation of a too-little-known plant. And there are Campanulas, too—one might almost enumerate a dozen such—*Zoysii*, *Tymonsii*, *garganica* and its forms, *fragilis*, *isophylla* and its varieties (hardy enough and perennial enough if planted in chinks of rock instead of the richer soil in the pockets), *Stansfieldii*, *White Star*, *Profusion*, to say nothing of the later-flowering varieties of the turbinate

group—which are worthy of a little more thought from those who would embrace the longest possible season of flowering. Then there is the wild *C. rotundifolia*, or Harebell, a charming plant that is worthy of inclusion in the best rock gardens where flowers are required during July and August.

In not a few instances the owners of large gardens are absent from home for weeks after midsummer, when but little encouragement is given to subjects flowering after that time. These and other things might readily constitute contributory causes for the absence of some plants and the unrepresentative display of others during some weeks of the latter part of summer. What is needed most of all, perhaps, is a rock garden on a more representative plan planted with a view to do justice to all, rather

Lysimachia Henryii and *Wahlenbergia vincaeflora*—plants of undoubted merit and utility—may all be added to the lists of late summer alpine flowers, growers of such things have no cause for repining and much less for despair. At the same time, there are good plants other than novelties or reintroductions meriting all consideration, and one recalls *Zauschneria*, *Polygonum vaccinifolium* (a rock-draping mass of this almost challenges description), *Gentiana septemfida*, *G. Andrewsii* (good in its unopened bud colour), *Sternbergia*, *Crocus*, *Cyclamen* and others which might profitably be used to prolong the season of flowering in this department. Just what is available and what most useful are questions worth pursuing, while of even greater moment is the increase of some.

THE GREENHOUSE.

MINIATURE HYACINTHS.

THERE is no doubt the trade in Hyacinths in Holland is nothing like what it was twenty-five or thirty years ago. Daffodils and “taste” account for the decline. Ask any old firm round about Haarlem or Hillegom how many Daffodils they grew then and how many now? The flower-lover of the twentieth century must have Daffodils in his garden and in his greenhouse, and someone has to supply him with bulbs. Again, the tide of taste has changed. The formal has given place to the informal, and heaviness to



A PAVED LAVENDER WALK WITH TUFTS OF CAMPANULAS GROWING BETWEEN THE STONES.

than, as is often the case, to permit the free-flowering and showy to predominate, to the exclusion of much else that is good or even more worthy. In private gardens, naturally, the season of greater gaiety is at the direction or wish of the owner, while at Kew or at Wisley, whither gardeners and others go for inspiration and education, the idea of more representative planting, as opposed to display work covering shorter periods of time, might reasonably receive studious thought.

In certain directions late-flowering alpines are asked for—almost clamoured for—hence there is need to look around to see what is to be had. Each year, too, is giving evidences anew that the supplies are not exhausted; and when in a single season such good things as *Astilbe simplicifolia*,

The following are among good things worthy of consideration, though the list makes no pretence at completeness: *Campanulas waldsteiniana*, *Zoysii*, *Profusion*, *Stansfieldii*, *fragilis*, *isophylla*, *garganica*, *Tymonsii*, *White Star* and *rotundifolia* (Harebell), *Cyananthus lobatus*, *Erigeron mucronatus*, *Polygonums vaccinifolium*, *empetrifolium* and affine (*Brunonis*), *Lysimachia Henryii*, *Saxifraga Fortunei*, *Zauschneria californica*, *Gentianas Andrewsii* and *septemfida*, *Sternbergias*, *Crocus* species in variety, *Sedum spurium* in variety, *Ceratostigma plumbaginoides*, *Silene alpestris*, *Mesembryanthemum uncinatum*, *Androsace lanuginosa*, *Wahlenbergia vincaeflora*, *Achilleas* in variety, *Acænas* and *Eriogonum umbellatum*.

Hampton Hill.

E. H. JENKINS.

lightness. The stiff spike of the Hyacinth has been steadily declining in popular favour.

For some time now I have been preaching to the bulb-dealers of Holland as their means of salvation miniature Hyacinths. The invariable answer was, “They won’t pay to grow.” I think they must have found out they were mistaken. Every 1912 list that I have taken up has them in, and I am told by the wholesale growers that the sales of these small bulbs have increased enormously during the last two or three years. Except for showing in competition they are suitable for every purpose for which the large ones were formerly used. Out of doors they are not so top-heavy, and do not need quite the same care in staking. In pots they are lighter-looking, and three miniatures

in a 5-inch pot are less stiff and formal than one large fat spike. Their culture is precisely the same.

A point of interest is the *depth* of the pot or pan. I have long come to the conclusion that the ordinary ones are too deep, especially in the larger sizes, and that all Tulips, Hyacinths and Daffodils look far better in shallower ones. I think readers will agree that there is not much wrong with the miniature Hyacinths illustrated on this page. It will be noted that the pot used is one of those which I am advocating, and that its diminished depth has been no detriment to their growth. It may also be seen that it has a glazed surface, and that it rests on a special shaped stand. This latter I invented to take the place of the usual saucer or plate. It is much neater and is just as effective. The glazed pot is provided with ordinary drainage like any other. It is brown in colour.

As the culture of the miniature Hyacinths is the same as that of the larger and older bulbs, so there is no difference in the varieties. A miniature L'Innocence is really a two or three year old bulb, when second size and top size are two or three years older still. The following is a good selection: White—Albertine (early), L'Innocence, and Mr. Plimsoll (palest blush); pink—General de Wet, Charles Dickens, Lady Derby and L'Ornement Rose; red—General Pellissier (early), Roi des Belges, Homerus (rose, very early), Gertrude and La Victoire (early, new and very fine); dark blue—King of the Blues, Marie and Baron van Tuyl; pale blue—La Peyrouse, Johan, Lord Derby and Schotel; mauve and violet—Lord Balfour and Sir William Mansfield; yellow—Fleur d'Or and Yellow Hammer. JOSEPH JACOB.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATE.

Odontoglossum Woodroffæ (O. Rossii rubescens × O. Queen Alexandra).—The sepals and petals of this handsome form are of brownish crimson irregularly barred yellow and cream. The purplish lip is emphasised by a white disc. It is a most distinct hybrid. From Mr. E. H. Davidson, Twyford.

AWARDS OF MERIT.

Odontoglossum Neptune (O. crispum × O. nebulosum).—The sepals and petals are white, with crimson blotches. The lip is also white and irregularly marked crimson.

Odontioda Margarita (O. madrense × C. noetzliana).—This is one of the most distinct hybrid Odontiodas we have seen, the flowers having the unmistakable colour combination of some so-called pink-flowered Snapdragons, and in which pink and brown and yellow combine. These two fine novelties came from M. H. Graire, St. Fuscien, France.

Cattleya Lord Rothschild albescens.—A very handsome variety of large size. The wide, winged

sepals and petals are white, the bold, fringed lip of golden hue, heavily veined purple and tipped with pink. A very striking and beautiful novelty. From Messrs. J. and A. McBean, Hayward's Heath, Sussex.

Lælio-Cattleya hastediana (L. Henry Greenwood × C. aurea).—The sepals and petals are of a lustrous rose colour, the crimson lip being heavily fringed and freely reticulated with gold at the base. Exhibited by Mr. C. J. Phillips, The Glebe, Sevenoaks.

Zygopetalum maxillaria sanderiana.—In this distinct variety the sepals are of an intense

pink, and should be effective under artificial light. From Mr. J. T. West, Brentwood, Essex.

Dahlia Johnny (Pompon).—A model-formed flower of maroon crimson shade. From Mr. J. T. West, Brentwood.

Dahlia Mrs. Randall (Cactus).—The predominant colour is rosy cerise, the tips of the florets creamy white, the bases of buff yellow tone. From Messrs. James Stredwick and Son, St. Leonards.

Dahlia Jenny Wrenn (Garden Cactus).—The flowers are moderately large, the florets pink-coloured, with yellow bases. Exhibited by Messrs. James Stredwick and Sons, St. Leonards.

The foregoing Dahlias, having been adjudicated upon by a joint committee of the Royal Horticultural Society and the National Dahlia Society, carry the award of merit of the former and the first-class certificate of the latter.

Chrysanthemum Mrs. Joan Carter (Single).—The colour is a rich butter yellow, the flowers of medium size. In spray form it was most attractive. From Messrs. William Wells, Limited, Merstham.

Chrysanthemum Framfield Early White.—A pure white of much merit, the crisp, paper-like rustle of the petals denoting long-keeping qualities. From Mr. Norman Davis, Framfield, Sussex.

Pentstemon Mrs. F. Fulford.—Almost a self crimson throughout, a variety of large size and high decorative excellence. From Mr. Fulton, Tarnbolton.

Rose Little Dorrit (Tea).—Quite a charming variety of a rosy peach shade, with salmony and buff suffusions. It is delightful in the bud or expanded flower, presenting quite a variety of shades in these from day to day. Exhibited by Messrs. G. Paul and Sons, The Old Nurseries, Cheshunt.

Rose George Dickson (Hybrid Tea).—A giant among Roses of all sections, a veritable peer among its fellows, and one obviously of an epoch-making character. Already a gold medallist of the National Rose Society and the recipient of honours wherever shown, this magnificent variety is destined for great popularity. It is, as it were, the very embodiment of all that is good in such as Horace Vernet, Charles Lefébvre and others not far removed

which combine the most intense of crimson-scarlet shades.

Rose Mrs. Mackellar (Hybrid Tea).—Another superb variety of creamy yellow tone and pleasing fragrance.

Rose Edward Bohane (Hybrid Tea).—This is of giant proportions and of cherry red colouring. As a bedder it should prove a most attractive sort. These three novelties were exhibited by Messrs. Alex. Dickson and Sons, Limited, Newtownards, County Down.

The foregoing plants were shown before the Royal Horticultural Society on September 24, when the awards were made.



MINIATURE HYACINTHS IN A GLAZED POT WITH STAND TO MATCH.

olive green shade and irregularly blotched dull purple. The frontal lobe is of large size and of the purest white, with violet-coloured base. Exhibited by Sir Trevor Lawrence, Bart., Dorking.

Kniphofia John Benary.—This is one of the most brilliant and attractive of the late-flowering Torch Lilies, the colour being a brilliant orange scarlet. The plant is between 5 feet and 6 feet in height. From Messrs. James Veitch and Sons, Limited, Chelsea.

Dahlia Useful.—The name is somewhat suggestive of the variety, which is of the garden decorative type and of medium size. The colour is rosy

GARDENING FOR BEGINNERS.

GREASE-BANDING FRUIT TREES.

AMONG the numerous pests which attack fruit trees, few are more annoying than the spring caterpillars. After a fine show of blossom and a good set of young fruit, a bad attack of this troublesome pest may cause nearly all of it to be shed on account of the leaves failing to supply the necessary food at a critical time.



1.—HOW TO FIX THE "MULTI-
PLEX" BAND TO THE TREE
STEM. SEE THAT ONE EDGE
LAPS WELL OVER THE OTHER.

The alternative method is that of grease-banding. The larvæ which do most damage are those of certain winter-flying moths, which pair and lay eggs during the early autumn and winter; and from the fact that the female is wingless comes the success of this method of grease-trapping. The chrysalis, having spent the summer in the soil, hatches out from October onwards, and the female climbs the tree and lays her eggs on the younger branches, and these eggs, at the approach of spring, hatch into the destructive caterpillars which are only too well known to gardeners. The essential point of the system is to have a grease which keeps sticky during the longest possible period. The greases generally sold do not, unfortunately, last longer than about two months, and it is therefore necessary to renew them from time to time. A preparation called "Tanglefoot" is now, however, on the market, which will keep in a sticky condition for nearly a year—certainly long enough to catch all the winter moths. The only objection to it is that of cost, it being many times more expensive than the ordinary greases. When, however, efficiency is considered, it is well worth the extra price.

The second important point is that of the paper. Any soft paper will, with the winter rains and winds, soon be torn and useless, and a tough waterproof paper is therefore necessary. This is cut into suitable sizes to encircle the trunk of the tree about four feet from the ground if standard trees are to be treated, or lower if with shorter stems. Allow enough paper to fold it over double at the joint, or it may blow apart in strong winds. Also for the same reason the joint should

be on the side away from prevalent winds. The paper is then tightly tied about one inch from both top and bottom, choosing a position where the bark is smooth to prevent the insects from walking up between the band and the tree.

The grease is then applied with a flat piece of wood about an inch wide. A mistake is often made in getting too thin and wide a layer. A small, thick layer resists evaporation much better and is just as effective, one 2 inches wide being excellent. Slight difficulty has been experienced in some cases in applying "Tanglefoot," as it is rather more viscid and less mealy than the grease. If care is taken not to put too much on at a time, it will be found to spread fairly easily. The band is now ready and requires no further attention except, in the case of the grease, a monthly visit to see if it is still sticky. If good material is used and thickly spread, it can be stirred up with a stick and a fresh surface exposed. A convenient band has been devised in Germany and sold in this country under the name of "Multiplex"; this not only serves the above purpose, but also acts as a trap for the larvæ of the Codlin moth and the Apple blossom weevil. The maggot of the Codlin moth, which is found in Apples, passes the winter in crevices of the bark in the chrysalis state, and the band, having an inner surface of corrugated paper, provides a suitable resting-place for it and the weevils when they ascend the tree in search of shelter. The band is then taken off and burned to destroy them in the spring, before they hatch out to lay their eggs on the young fruits. The outer layer of waterproof paper is specially made to take grease, the band thus serving the two purposes. The method of fixing the band is shown in the first illustration. This band ought to be put on in June for the Codlin moth, and it can then be greased in October and burned in the spring. If the Apple blossom weevils are troublesome, the band will trap these as they ascend the tree. Thus with this new band we have it on the tree nearly all the year. Early in October it is advisable to put on the bands and to have them greased as a trap for the



2.—APPLE BLOSSOM WEEVIL. THE LARVA OF THIS IS TRAPPED BY GETTING BETWEEN THE INNER AND OUTER PAPERS.

winter moth. The same bands may, if necessary, be left on to catch the weevil and Codlin moth larvæ. In the March following the bands should be burnt, and new ones put on the following June to take their places.

PROPAGATING BEDDING CALCEOLARIAS.

The cuttings may be inserted any time from the middle of September to the middle of October. Although many thousands of cuttings are taken quite a month earlier, the resultant plants are not often as good as those raised from cuttings put in later. The wood of the Calceolaria is somewhat hard during the summer and the very early part of autumn, and when such wood is inserted it does not callus and form roots as soon as the cuttings made of softer wood. The best shoots for cuttings are those found near the base of the old plants, and it suffices if these are merely slipped off by gentle pressure with the fingers and thumb of one hand. The end of the stem should then be made smooth by paring it off with a very sharp knife. Usually these cuttings are inserted in frames facing the north, and, although they do fairly well in them, I believe in putting them in a frame facing the south. There is no strong sunshine from the date of insertion until the following spring, and only a light shading is needed. The cuttings root readily enough, and in the warm weather of springtime they grow very sturdily and are not drawn up as weakly as those grown for so many weeks in a north aspect. The bed should be composed of loam, leaf-soil and sand, with sand on the surface half an inch deep. Make all firm, insert the cuttings 3 inches apart each way, water, close the lights, and shade from any bright sunshine for a few weeks. When roots form, ventilate freely. A cold frame has many uses in the winter months. No amateur should be without one, and for striking Calceolaria cuttings it is all that can be desired. It is important that sturdy cuttings should be selected; then, with a reasonable amount of care, success will be ensured.

B.



3.—THE CODLIN MOTH. THE LARVÆ WILL SPEND THE WINTER BETWEEN THE TWO LAYERS OF PAPER AND CAN BE BURNED IN SPRING.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Lobelia cardinalis.—To preserve this plant through the winter months the roots should, when the plants have had their foliage spoiled by frost, be lifted, the stems cut off and stored in a box in leaf-soil or old potting material, and placed in a cool house and watered in. Afterwards little water will be needed, and, whenever possible, a free circulation of air should be given to prevent damping off.

Autumn-flowering Chrysanthemums.—Late-blooming varieties should, if possible, be protected at night from frosts, and the covering removed by day. Cut off any faded blooms, see that the plants do not lack support, and generally keep as tidy as possible. The Pompon varieties are not nearly so fashionable or frequently met with, but are attractive when planted at the foot of a wall, where, except for an occasional division and looping up of the growths, they are very little trouble.

Tuberous-rooted Begonias.—When the growths are cut down by frosts, the tubers, if required for another season, or perhaps the best of them that have previously been marked, may be lifted and placed for a few days or so in a light position under cover, so that the tubers may become thoroughly ripened before storing away for the winter and the foliage more or less naturally parted.

East Lothian Stocks.—I fully intended to mention a week or two earlier the autumn sowing of these. If not already done, sow seed at once in a box or pan of fine soil and place in a cold frame. Then, as soon as the seedlings are large enough, transplant into a frame or boxes and winter until the opportunity arrives for planting in the spring. For continuance of blooming these are indispensable, and their good growth admits of the greater number of the singles being removed as soon as visible, thus allowing the doubles a greater amount of space to develop.

Plants Under Glass.

Zonal Pelargoniums.—When housing these plants they should be placed as near to the glass as possible and not be overcrowded, otherwise the growth made will be weak and the resulting flowers poor. Avoid overwatering, but occasionally assist the plants with stimulants, and for a time avoid too dry an atmosphere. Look out for the small green caterpillars, which soon play havoc with the foliage. If they cannot be seen, they may often-times be dislodged by holding the pot firmly, the foliage downwards, and giving a sharp tap to the pot with the other hand.

Liliums.—Pot up the bulbs as soon as they arrive and stand closely together in a cold frame. They like a compost of good fibrous loam enriched with some powdered cow or sheep manure, with the addition of a little leaf-mould, finely-crushed charcoal and sand. Avoid overwatering until growth is fairly active. When potting, keep the bulb towards the bottom of the pot, so that there is room afterwards for top-dressing.

The Hardy Fruit Garden.

Picking and Storing Fruit.—Though I have once before made reference to this, I would like to add a few remarks concerning this important work. Picking should be proceeded with as the fruits become ready, choosing dry weather, and when the fruits are dry also. Handle as carefully as possible, and where space permits lay them out in a single layer. The patent trays that fit one upon the other are, I consider, ideal, especially for those who have limited room, as they are very compact and admit of a free circulation of air between the fruits.

Strawberries.—If the land has only just become vacant, planting of late runners rooted in 3-inch pots may still be carried out. A small plantation may be made, to follow flowering subjects, such as Sweet Peas and Pentstemons. A complete change in this manner often results in a good growth after first breaking up the ground and giving a dressing of manure.

Fruits Under Glass.

Peaches and Nectarines.—Trees that are growing in unheated cases should, as soon as the fruits have been removed, be thoroughly well syringed,

and also watered if it is thought at all necessary. Abundance of air by day and night will help to thoroughly ripen the foliage and harden the growth, and where the lights are portable, by all means remove them entirely, unless they have to shelter plants.

Late Grapes.—Just a little fire-heat, and especially during damp weather, will help to keep the bunches in good condition. Any extra shading that was used above the foliage for helping to colour black Grapes may now be removed. A covering of straw over the borders will greatly assist in the prevention of evaporation, as well as giving the house an attractive appearance.

Preserving Grapes.—Where it is not convenient to allow the bunches to hang on the Vines, they may be well preserved by the use of bottles of water. There are one or two inventions on the market for this purpose; but, failing these, the ordinary pint and a-half wine-bottles will be found to answer the purpose admirably. They should be filled with pure water, and a pellet or two of charcoal will help to keep the water pure. Cut off the bunch with a portion of the old wood attached, and see that the stem touches the water.

The Kitchen Garden.

Spring Cabbage.—Continue to plant out the later seedlings on vacant ground, and as the work proceeds give a dusting of soot. Those that were put out last month should be assisted by frequent hoeings to ensure good plants before winter sets in.

Celery.—The work of blanching will now be in progress for the later supplies. This work entails a good amount of labour, but to ensure its good quality it must not be done slipshod. Choose fine weather and when the plant is dry, and stretch a line on either side of the row. Before commencing to earth-up see that the sticks are freed from any defective leaves and side growths. Break up the soil finely and well work in among the plants, holding the stalks together firmly so that no soil finds its way among them. For this reason, where it can be done, three men should be employed, one to walk backwards and attend to the plants, and one on either side of the row to break up the soil. This, of course, greatly expedites the work, and is really economy in working. Do not hurry to blanch the latest supplies, as the later this can be done the better the keeping properties.

Parsnips.—These need not be lifted entirely like many of the other root crops, and, being perfectly hardy, the bulk may be left in the ground, as then they are considered sweeter and better flavoured.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Rose Cuttings.—These may be taken at any time now, choosing shoots about a foot long and inserting them 9 inches into the ground. They must be made quite firm, when frost will have no effect on them, and dry weather very little in late spring. The hybrid wichuraianas in particular strike root very freely, and they even flower the first summer; but many other Roses may be propagated in the same way. Well-matured young wood is essential.

Lifting Plants.—A watchful eye must be kept on the weather, and if plants are not protected on nights when frost is imminent, those that are wanted for another year should be lifted before being frost-bitten ever so slightly. In all cases employ pots small for the size of the plants, and as a rule it is better to stand them in a protected position out of doors for a few weeks rather than house them immediately. Some plants can be grown into quite large specimens from young material; Calceolarias, for instance, and these need not be preserved.

Agapanthus.—These winter well in a frost-proof structure with plenty of soil packed round and between the balls of roots. They ask for no water for months. If stock is wanted, one or two flower-heads may be left to mature seeds, seedlings growing very rapidly and producing stronger flowering plants than can be secured by divided old ones.

Sweet Peas.—Failure to bloom has been the general complaint this year, and it may be worth

while to consider the advisability of depending for effect on the grandiflora section, which has been fairly floriferous, notwithstanding the unsuitable weather. Seeds for strong flowering plants may be sown at once, care being taken to cover the pots with something that will prevent mice reaching the seeds.

The Plant-Houses.

Chrysanthemums.—The whole of those yet out should be transferred to empty structures during the incoming week. They may be effectively grouped in colours, but must not be stood too closely together, otherwise mildew will cause the leaves to drop. Give abundance of air in the meantime, closing only in the case of frost. The amount of water must be apportioned to their changed conditions; but overwatering, it should be remembered, though apparently innocuous, has an evil effect on the keeping of the blooms when cut. Clear manure-water and very slight applications of sulphate of ammonia are valuable colouring agents.

Bulbs for Pots.—The remainder may now be placed in pots. Usually they comprise only early Tulips and Hyacinths, but Darwin Tulips and Parrot Tulips and a selection of early Gladioli, e.g., The Bride and Ackermannii for cutting, and early Spanish Iris, such as Belle Chinoise, are also well worth growing. Store the filled pots in a protected position out of doors and cover with cinders or Cocoa-nut refuse. As a rule they will be ready for removal about the New Year.

Late Asters.—In the majority of gardens late Asters will not bloom if left out. The flowers are so valuable that at least a selection should be lifted and placed in pots or boxes, to be stood in any cool structure till the flowers are over. Once fresh roots push, they do not resent being in a warm greenhouse, but the colours are not so fresh as when expansion takes place in a perfectly cool place.

The Vegetable Garden.

Onions.—These will now be well enough ripened to store for the winter. Frost does not seem to harm the bulbs; but dryness, with fresh air, is essential to hinder them from pushing shoots and roots. I grow the largest proportion of James' Keeping, which is easier to ripen than very large sorts, and therefore keeps better.

Beet.—The crop may now be carefully lifted, the leaves twisted off and the roots stored away in sand in a frost-proof outhouse, or else clamped like Potatoes, with plenty of dry straw between the roots and the upper layer of soil. Dig or trench the ground after it is cleared, burying the leaves in the process.

Lettuces.—It is time to transfer plants not too forward from the open to frames for winter use. Sowing after sowing failed in August, and unless some were sown in frames or boxes, there will be a scarcity. Much may be effected by sowing in cutting-boxes at intervals and using the tender leaves when large enough. All the Year Round is one of the best for this purpose.

Cauliflowers.—There is often a glut at this time of the year, but the heads can be kept for some time if the plants are drawn and hung up in a very cool place. It is important, too, to protect those not lifted with a large leaf, which keeps them from losing colour and being damaged by bad weather.

The Hardy Fruit Garden.

Fruit-gathering.—All except the very latest Apples and Pears may be picked within the next ten days. King of the Pippins, Ribston Pippin and others that come on by degrees should be looked over twice or thrice weekly, and such Pears as Marie Louise, Emile d'Heyst and others that mature in the same way should be similarly managed. The fruit is not only finer flavoured, but the season of each is considerably extended when the gatherings are many.

Trees on Grass.—Grass has been so luxuriant that some of it has been mown two and three times. It should now be mown for the last time, when the orchard will be tidy for some months on end, except when the falling leaves make a litter. The finest fruit and the healthiest trees generally grow here on ground sown down with grass. It has the advantage of producing two crops, one of bulbous flowers and the other of fruit, and is easier to keep even in such an exceptional year as the present than bare soil.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

NURSERY NOTES.

THE WARGRAVE PLANT FARM.

SUCH is the style and title of an entirely new plant nursery which, during the past year, has sprung into being in the clear, open and pure country atmosphere between Twyford and Henley. Its immediate position is on the main Bath Road, a mile or so from the Twyford and Wargrave Stations (Great Western Railway); while to the pedestrian or motorist from the Reading side it is presented to view on slightly-elevated ground at a right-angled turn half a mile or more ahead, about midway between the places named. Hence, at the outset, there has been no idea of "hiding the light under a bushel"; rather has there been a studied and businesslike attempt to reveal its whereabouts to all whom it may concern.

This, then, is the brief introduction we present to our readers of the new-comer, though an equally important obligation remains, viz., to introduce its promoter and proprietor, who is Mr. Bernard Crisp, a son of Sir Frank Crisp of Friar Park, Henley-on-Thames. In this solitary fact prestige and importance participate, the former of a purely personal nature, the latter because this particular beginner's experiences have been founded upon a rock—that at Friar Park to wit—and not been built upon the sand. Schooled in such a university, it is little wonder that Mr. Bernard Crisp has invested this new venture of his—a realisation of the dream of years—with a knowledge and enthusiasm which are of considerable rarity, and which will doubtless stand him in good stead as the years go by. Already there are some six acres of recent pasture-land within the enclosure, with opportunities for liberal extension. The plants already installed in the nursery beds—and they exist in their thousands—evidence unusual vigour and freedom, and there appears little room for doubt that the vast majority of plants such a nursery should contain will presently find here a highly-congenial home.

Flanking right and left within the crescent-formed entrance are broad stretches of *Nepeta Mussini*, a highly-attractive plant with bluish violet flowers. From this point spacious herbaceous borders prevail, acting as conductors to what is beyond. In these, for the most part, many goodly examples are to be seen, *Heleniums*, *Polygonums*, *Kniphofias*, *Sunflowers*, *Michaelmas Daisies* and similar kinds, and adjacent thereto collections or selections of these and other plants galore, the aim of the moment being to get together, test, and presently retain the fittest of each. In order to carry this into effect, much space is devoted to *Flag* and other *Iris*es, to *Phloxes* of the *decussata* or herbaceous set, to *Michaelmas Daisies*, and, in turn, to all other large classes of plants. What appealed to us most strongly, however, was the great range and variety of alpine in plunging-bed or frame—they were present in their battalions, and the nursery is obviously destined to be a veritable emporium for such things. Nor were the plants mere fragments of their kind; on the contrary, they surprised us by their representative character and good and sensible size, such, indeed, as are calculated to endure and to conform to the guarantee which the published catalogue gives concerning them. Obviously such a collection and such plants are not the work of a day, and obviously, too, Mr. Crisp gardened with these things in days before the nursery began.

Amid thin, sheltering hedges of Beech and in prepared soil we got quickly into touch with the choicer subjects, and here in their hundreds were many plants being raised from seeds. Of these, quite a revelation was a batch of *Primula capitata* in full flower within ten months of the sowing. The variety, too, was a particularly good and rich-coloured one, taller—12 inches to 15 inches for the most part—and perhaps a trifle more frail of stem than is the typical kind usually. The fine, free mass of it in early September days was most welcome, and rock gardeners and others who require this good plant at that time should make a note of it straight away. *P. bulleyana*, *P. littoniana*, *P. frondosa*, *P. Forrestii*, *P. denticulata* and its varieties *cashmeriana*, with *P. rosea* and many more, were all here upon the same plan, though not affording the conspicuous flowering of that first named. *Gentians*, too, are being raised from seeds, with more or less success, also the best of the alpine *Anemones*, such as *A. alpina*, *A. sulphurea*, *A. Pulsatilla*, *A. P. alba* and others. These latter are here in endless numbers, the seedlings constituting a veritable sward upon the ground. They are destined for further trial, however, the white form more particularly to ensure nothing but the best stock being distributed, a principle to which considerable importance is attached.

In these same shelters—veritable nurseries for the choicest children of garden and mountain—we came upon a capital grouping of *White Star Campanula*, whose white, salver-shaped flowers are 2 inches across on plants not more than eight inches high. It is a great beauty, and full of flower. The *Worm Grass* (*Spigelia marilandica*), in crimson and gold; *Anemone sylvestris grandiflora* flore pleno, that inimitable carpeting alpine; *Linnaea borealis canadense*, whose exquisite drooping flowers of rose pink and white dangling as tiny bells from frail 3-inch-high stems beckon by their perfume alone; with *Soldanellas*, *Pratias*, *Spiraea digitata nana*, pink-flowered; *Lobelia radicans*, whose violet flowers have yellow spots and a white throat; *Wahlenbergia serpyllifolia major*, *Myosotis rupicola*, the true alpine *Forget-me-not*; and the rarely-seen *New Holland Violet* (*Erpetion reniforme*) were all here worthy representatives of their kind. Quite interesting and beautiful and new to us, as we believe it is to commerce, was the grey-leaved, yellow-flowered *Alyssum moellendorffianum*. It is of prostrate habit, late-flowering, and therefore valuable.

Quite naturally, in its more popular sections the genus *Saxifraga* predominates, and scores of the best, with choicer kinds in the hands of the propagator elsewhere, are sufficient for all purposes, sufficient to enthuse the visitor of their worth, their endless variety and their charm, and all-sufficient for those who garden with the best of them in alpine house or rock garden. Quite one of the more notable features of the nursery, however, are the rich collections of grey or silver leaved plants that crop up in all directions, whole groups of silvery *Artemisias*, *Achilleas*, and, in lesser degree, *Teucrium*, *Veronica*, *Pyrethrum* and *Senecio* occurring among the rest. An invaluable plant in this connection is *Santolina incana nana*, which in its cushioned tufts is quite unique. The pretty, ever-flowering *Erodiums*, silvery and otherwise, are here too, while such unique subjects as *Euonymus radicans kewensis*, *Pelargonium endlicherianum* and *Polygonum vacciniifolium* are receiving the attention they merit. Among choice shrubs, *Carpenteria californica*, *Fremontia californica* and *Fabiana*

imbricata were noted in quantity; while extensive accommodation exists for the best *Water Lilies*, which are already installed in considerable force. In short, it is a nursery destined to meet the requirements of all interested in hardy plant gardening, be the direction what it may.

The shop and offices of the firm are situated at 10, The Arcade, Liverpool Street, London, E.C., where exhibits of seasonable flowers are to be seen daily. Bulbs of all kinds are also well displayed just now, and purchasers can rest assured that every endeavour will be made to give satisfaction.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

PRIMROSE PLANTS FOR INSPECTION (*L. Barron*).—The plants are not affected by any disease, but appear to us to have been left too long in the same place. The stem of most *Primroses* elongates, and new roots are annually produced just below the leaf rosettes. It is important that the plants should be placed in such a position that they may push their roots into the soil as quickly as possible.

HERBACEOUS PLANTS FOR SANDY SOIL (*J. H.*).—Providing your ground has been fairly well manured, you ought not to find any difficulty in growing a general collection of herbaceous plants. The following subjects will act as a guide to the kinds of plants to choose: *Delphiniums* in variety, *Phlox* in variety, *Sunflowers*, *Asters*, *Salvia nervosa*, *Lychnis chalcedonica*, *Monarda didyma*, *Gypsophila paniculata*, *Galega officinalis*, *Pentstemons*, *Snapdragons*, *Lilium candidum*, *Papaver orientale*, *Veronicas* in variety, *Campanula persicifolia*, *Saxifraga cordifolia*, *Statice Limonium*, *Hollyhocks*, *German Irises*, *Saponaria officinalis* flore pleno and *Chrysanthemum maximum* varieties.

LAYING OUT A GARDEN (*Rock*).—We endeavour to assist our readers as far as is possible with advice and other matters, but giving garden designs—which, as a rule, would only suit individual cases—is beyond our scope. Your letter has two references to a pond, though your sketch merely shows a ditch 2 feet wide and 1 foot deep. If this shallow ditch is habitually water charged, it would affect the surrounding land, and of necessity the planting would have to be consistent therewith. In such cases much hangs on a very little, and we think your better course would be to send us a more complete sketch of the ground, indicate the position of the pond, and give fuller particulars as to the ditch and general surroundings. We may then be able to assist you.

HERBACEOUS PLANTS FAILING (*F. A.*).—Doubtless in every garden, or locality, you would find a few instances of plants not doing quite so well as the majority. Those not having grown luxuriously in your present garden are instances in point, and may be accounted for thus. The *Anemone* prefers a rather shaded spot and deep sandy loam. *Snapdragons* are most happy in light sandy, or stony, and poor soils. The *Flags*—*Iris*es we presume you mean—are usually content in light or heavy soils, if away from trees and no wireworm is present in the soil. The *Epimedium* is a lover of sandy peat and loam and a cool-rooting medium. This plant is also at home in light loamy soils and shade. *Montbretias* prefer rich loamy soils, and are best when annually lifted and rested, taking them up in October and replanting singly in well-prepared ground in March or April. Success, however, has not to do with soils alone, and often the planting or the planter is at fault. For example, *Iris*es or *Pæonies* are often planted in big clumps intact, when they should be divided freely. In the case of the *Iris*, 4 inches or 5 inches of the current year's rhizome (rootstock) and the growth is ample, all back sections of the rhizome being useless. By planting half-a-dozen or a dozen of these a few inches asunder, a good group would be formed, and the principle is worthy

of general adoption. Take care that you work the soil of your new garden as deeply as possible, and add light road sweepings and manure freely to improve the staple.

EREMURUS FAILING (*A. M., Ambleside*).—If you are sure that wireworm is not at the root of the trouble, it is highly probable that some ground fungus may be at work. In the seedling stage, and in frames, not a few things damp off wholesale; but we presume your plants have long since passed that stage. In all the circumstances, we are inclined to regard the trouble as of a fungoid nature and one which, in all probability, will be best remedied by a slight application of lime to the soil and to the parts affected. Are you sure that the plants are buried deep enough in the earth? since the Eremuri build their crowns one above the other, and so presently lift themselves out of the soil, and the roots emerging from the base of the crowns get out of touch with support. So many things that predispose to failure are frequently overlooked or unknown. If, on further observation, the fungus theory is supported, your better plan will be to lift and replant them in a fresh site in early October. The crowns should then be thoroughly cleansed by washing.

TREES AND SHRUBS.

PRIVET HEDGE (*Dolphin*).—You had better leave your Privet hedge alone until next spring as regards severe pruning, then you may cut it back as severely as you like. April is a good time. The Willow hedge you mention may be pruned at once if you wish.

BIRCH LEAVES (*X.*).—There is no fungus present to account for the dying of the Birch foliage. It is possible that the trouble is due, as you suggest, to the roots getting into too wet a substratum. A water-logged soil causes suffocation of the roots, and this reduces the amount of the supply of water to the foliage. The water supply might well be sufficient for the demand when the leaves first expand, and prove insufficient when they had reached a greater size and increased in number. 2. The Pears are attacked by the fungus *Fusicladium pyrinum*. Adopt the measures we recommend in reply to "J. S." on this page. 3. As to the non-fruiting of the trees, is it certain that the pruning is carried out on the right lines?

SHRUBS FOR BANK FACING WEST (*J. H.*).—The following kinds are likely to prove satisfactory in the position you describe. All may be kept to within 4 feet or 5 feet in height: *Escallonia philippiana*, *Daphne Mezereum*, *Prunus japonica flore pleno*, *P. nana*, *Philadelphus Lemoinei* and variety *erectus*, *P. microphyllus*, *Olearia macrodonta*, *Cotoneaster thymifolia*, *C. horizontalis*, *Spiraea japonica* and variety *Anthony Waterer*, *Tree Ivies* in variety, *Tamarix pentandra*, *Berberis Aquifolium*, *Hypericum patulum* variety *Henryii*, *H. moserianum*, *H. calycinum*, *H. androsæum*, *Cistus monspeliensis*, *C. ladaniferus*, *C. villosus*, *Helianthemum formosum*, *Diervilla Eva Rathke*, *Phillyræa decora*, *Erica vagans*, *E. mediterranea* and variety *hybrida*, *Daboecia polifolia*, *Cytisus præcox*, *C. scoparius sulphureus*, *C. purpureus*, *Olearia Haastii*, *Genista hispanica* and any of the autumn-flowering *Ceanothuses*. The border should be trenched before planting.

ROSE GARDEN.

ROSES AND PEATY SOIL (*Rev. C. G. O. B.*).—We thank you for your letter *re* Mrs. Edward Mawley, and it is most interesting to learn from you that you have been so successful in the culture of this Rose. Undoubtedly many Tea and Hybrid Tea Roses revel in a peaty soil, providing they are well supplied with liquids in the growing season. *Laurent Carle* is a fine Rose in any soil, and we are glad you have found it good in your light soil. As regards *Mlle. Jeanne Philippe*, this Rose is not nearly so much grown as it should be. It is a beautiful colour and a good grower. It was raised by Godard and sent out in 1899.

ROSE FOLIAGE BLIGHTED (*E. B.*).—We do not think any pest has attacked the foliage; but the shrivelled appearance is either due to cold, frosty winds, or the plants have been sprayed with some insecticide that has been too strong for them. *American Pillar* is evidently a hybrid between the multifloras and wichurianas, for it possesses the glossy foliage of the latter and also some of its creeping tendencies. It is a grand climber, and its flowering period is early July in an ordinary year. The best blush Rambler to flower with *Hiawatha* and *Dorothy Perkins* is *Lady Godiva*. Simplicity is a very good bedding Rose, but not quite so free in flowering as *Rose Beauty*.

SELECTION OF ROSES (*E. H. R.*).—A good dark red to grow as a standard would be *Chateau de Clos Vougeot*. For a reddish yellow you could not do better than select *Duchess of Wellington*. For a pale pink sort with pointed buds, *Pharisæer* should please you, and a good white would be *Mrs. Herbert Stevens*. Comparing the value of *Frau Karl Druschki* with *Molly Sharman Crawford* for garden decoration, we should certainly favour the former, as it produces its blooms erect. Although it is such a strong grower, this, however, may be overcome by transplanting the bushes each year and pruning back rather hard. *Molly Sharman Crawford* is a very fine white, but has a tendency to droop.

PREPARING ROSE-BEDS (*P. J. Wood*).—We think your plan of procedure will be in the main quite all right; but instead of giving one-fourth of spent Hops to the surface, we would advise a dressing of gritty material, such as road scrapings from gravel roads, or, better still, some burnt clay. The best plan to adopt to give the soil lime would be to apply it in the form of chalk at the rate of about two pounds per square yard. The chalk should be broken up into fairly small lumps. If you added some

as you trenched the soil, this would also be an advantage. We presume you intend to add some good farmyard manure to the lower soil as you trench it. This we consider very essential; and as you plant each Rose we would advise giving a handful of bone-flour just before filling in the top soil.

EXHIBITION ROSES FOR MANUFACTURING TOWN (*Exhibit*).—Unless you grow the Roses for the spring shows, we fear you would find it difficult to produce Roses under glass for the summer exhibitions. We advise you to plant the Roses outdoors, and then to erect over them a temporary structure of wood, upon which you could put light waterproof canvas to ward off excessive rains. The plants could then receive plenty of air, which they require, and you would have them more under control against the weather vagaries. You could still grow them in pots if you wish, but the pots should be plunged in soil up to the rim. There must, however, be no glass covering, or, if you do have this, let the sides and ends of the structure be open, that is, assuming you want to grow for the summer shows. Twenty-five good show kinds for your purpose would be *Captain Hayward*, *Caroline Testout*, *Florence Pemberton*, *Frau Karl Druschki*, *Hugh Dickson*, *Lady Ashtown*, *Melanie Souper*, *Marquise Litta*, *Mrs. John Laing*, *Mrs. T. Roosevelt*, *Suzanne M. Rodocanachi*, *Ulrich Brunner*, *Countess of Shaftesbury*, *Dr. O'Donel Browne*, *George C. Waud*, *Gladys Harkness*, *Gloire de C. Guinoiseau*, *John Cuff*, *Jonkheer J. L. Mock*, *Lady A. Stanley*, *Lady Greenall*, *Mabel Drew*, *Mme. Maurice de Luze*, *Margaret* and *Mrs. A. E. Coxhead*.

FRUIT GARDEN.

SPUR-PRUNING PEACH TREE SHOOTS (*Y. Z.*).—Pinch to within two leaves of the base all present growths, and subsequent ones also, the idea being to strengthen the basal buds of the shoots and compel the formation of fruit-buds.

GRAPES INFESTED WITH MEALY BUG (*J. W.*).—The only safe thing you can do to rid your Grapes of the pest is to syringe each bunch with clean rain-water. You will require to use considerable force in syringing to dislodge the whole. By using clean rain-water there will be no sediment left on the Grapes and no harm done, as they will be fit for dessert as soon as dry.

BOOK ON FRUIT GROWING (*E. G.*).—You cannot do better than order a copy of "Fruit Growing for Beginners," which will be published from this office in the course of a week or two. The price is 1s. net. It deals in a simple manner with the cultivation of all kinds of hardy fruit, and you will find the numerous illustrations very helpful.

PEARS (*J. S.*).—The Pears owe their roughness and splitting to the attack of the Pear scab fungus, *Fusicladium pyrinum*. The leaves are also attacked and are being devoured by caterpillars. The best treatment for the former evil is to spray with Bordeaux mixture as soon as the petals drop, and for the latter with lead arsenate. Woolly aphis rarely attacks Pears. Some local condition must be at the root of the trouble with the Pears, causing their fall. Is the water supply all right? Trees on walls sometimes suffer badly from dryness at the root, although the rainfall may be copious.

MISCELLANEOUS.

WEED-KILLER (*Puffin*).—All the concentrated weed-killers of our acquaintance are of a distinctly poisonous nature, alike to plant and animal life.

NAMES OF PLANTS.—*T. W. C., Taunton*.—1, *Aster Linosyris*; 2, *Antirrhinum Orontium*; 3, *Veronica speciosa* variety *Eclatante*; 4, *Lathyrus* species.—*G. B., Dorset*.—*Tamarix gallica*.—*Lionel Ward*.—*Anchusa sempervirens*.—*Ignoramus*.—1, *Sedum Ewersii*; 2, form of *Viola munbyana*; 3, *Dianthus Carthusianorum*; 4, *Astrantia major*; 5, *Campanula garganica*; 6, a fungus (not in condition for identification); 7, *Fuchsia Miss Lucy Finnis*. If by Sun Roses *Cistus* is meant, they may be propagated by cuttings in the autumn, but seedlings always make the best plants.—*R. M.*—*Hypericum humifusum*.—*A. Midgley*.—1, *Tropæolum speciosum*; 2, *Sedum album*; 3, *S. reflexum*.—*F. W. Thompson*.—1, *Coreopsis* species, cannot name without flowers; 2, *Lamium purpureum* (?); 3, *Sonchus oleraceus* (Sow Thistle); 4, *Solidago virgaurea* (Golden Rod); 5, *Lapsana communis*; 6, *Hibiscus syriacus*; 7, *Hesperis matronalis* (Dame's Violet); 8, *Iberis umbellata* (Candytuft); 9, *Linaria bipartita*; 10, *Petunia*, garden variety; 11, *Cenothera amœna*; 12, *Saponaria calabrica*.

NAMES OF FRUIT.—*R. J. G. Read*.—*Souvenir du Congrès*.—*J. Corry, Dumfries*.—Apple *Yorkshire Beauty*.—*E. F. B., Eye*.—1, *Louise Bonne* of Jersey, dessert, October; 2, *Doyenné du Comice*, dessert, November and December.—*Captain M. B.*—*Pennington Seedling*.—*Fig*.—Pears: 1, *Nouvelle Fulvie*; 2, *Vicar of Winkfield*.—*Colonel D., Guernsey*.—Apple *Margil* and Pear *Emile d'Heyst*.—*A. C. C.*—1, *Vicar of Winkfield*; 2, *Bergamotte Esperen*; 3, *St. Luke*; 4, *General Todleben*; 5, *Beurré Superfin*; 6, *Beurré Balfet Père*.—*Constant Reader*.—1, *Court Pendu Plat*; 2 and 4, *Old Hawthornden*; 3, *Braddick's Nonpareil*; 5, *Cox's Pomona*; 6, *The Queen*. Yes; send some each week.—*S. W., Westgate*.—1, *Beurré Superfin*; 2, *Emile d'Heyst*; 3, *Lane's Prince Albert*.—*Captain C. E. K.*—1, *Leathercoat Russet*; 2, *Hambledon deux Ans*; 3, *Vicar of Winkfield*.—*W. B., Reading*.—1, *Beurré Clairgeau*; 2, *Beurré Hardy*; 3, *Mère du Ménage*; 4, *Lord Derby*.—*L. H.*—All the numbers were detached and mixed. It is a very unsatisfactory way of sending fruit with the numbers attached by pins.—*E. H., Sudbury*.—We think the Grape is *Foster's Seedling*, but the fruits were almost a mass of pulp when they reached us, so that it is impossible to say with certainty. Grapes should always be packed carefully.

SOCIETIES.

READING GARDENERS' ASSOCIATION.

THE first meeting of this vigorous society for the autumn session took place in the Abbey Hall (kindly lent by Messrs. Sutton and Sons) on Monday, September 23, when Mr. F. G. Drew (chairman of committee) presided over a large assembly of members. The lecturer for the evening was Mr. W. Camm of The Gardens, Cliveden, Taplow. Mr. Camm's subject was "Common-sense in the Cultivation of the Apple," and in his opening remarks said that his system, or, as some might think it, lack of system in the cultivation of the Apple, because based on common-sense, was adopted by him some years ago when taking his first complete charge at Battle. He pointed out that the rule-of-thumb method of pruning lateral shoots to the orthodox two eyes had to give way to a system the practice of which was based on the natural habit of the tree, its method of fruit-bud production and its general environment. Before it was possible to decide as to the best system to apply to any particular tree, these points had to be observed. Mr. Camm exhibited shoots of different varieties of Apples, showing how in some varieties fruit-buds were produced freely on the current year's wood in a manner resembling the Peach; with others fruit-buds were formed chiefly on short, stubby spurs along the sides of the unshortened shoots of the previous year. He pointed out how any material cutting back of these shoots induced growth instead of fruit-bud formation. Shoots of other kinds typical of a number of our best Apples were also shown, where the fruit-buds were largely produced at the termination of short lateral growths. Any shortening of these removed the greater part of the crop. He was careful to point out that his method of pruning and thinning applied to developed trees, and not to trees in the adolescent stage, whose chief business it was to grow—not to produce fruit—with which more severe methods of pruning were necessary in order to form a framework on which the fruiting wood was to be borne. A question with reference to summer pruning elicited the answer that the lecturer had neither time for it nor any faith in the practice. It might answer a useful purpose on young trees in a warm, dry soil. On older trees and heavy land it was generally detrimental. A very pretty collection of single Dahlias (from seed) was staged by Mr. H. C. Loader, The Gardens, Erleigh Park, who also exhibited vases of magnificent *Asters Sutton's Shell Pink*. Ten new members were elected.

THE EDITOR'S TABLE.

A New Moræa from Messrs. Barr and Sons.—Messrs. Barr and Sons of King Street, Covent Garden, send flowers of a beautiful and interesting new Moræa, a flower resembling in form the Spanish Irises. Messrs. Barr write: "We think you will be interested in seeing the beautiful Moræa *iridioides Johnsonii*, of which we send you specimens herewith. The flowers have opened with us in our office, and differ considerably from *M. iridioides* in being larger, more solid and lasting much longer. In the case of *M. iridioides* the flowers are more fugitive. We have now had these flowers in our possession three or four days. This Moræa was obtained by Mrs. Richmond from Ceylon, where it was imported from South Africa some years ago, and has considerably improved under the Ceylon climate."

Addresses of Gardeners Wanted.—The Editor of the *Horticultural Directory*, 10, Essex Street, Strand, London, W.C., will be glad if head-gardeners will notify him of any change of proprietorship or address since last October.

Another Cup for Rock Plants.—The Council of the Royal Horticultural Society offer at their show on March 4 and 5, 1913 (subject to the general rules of the society and the special regulations indicated below), a silver cup, presented to them by Messrs. R. Wallace and Co., for the best exhibit by an amateur of alpine plants, including suitable bulbs and dwarf shrubs, in a space not exceeding 5 feet by 3 feet. The use of stone is not absolutely necessary, but the judges will be instructed to favour its correct use and the natural arrangement of the plants in connection therewith. The plants may be either in pots or lifted.

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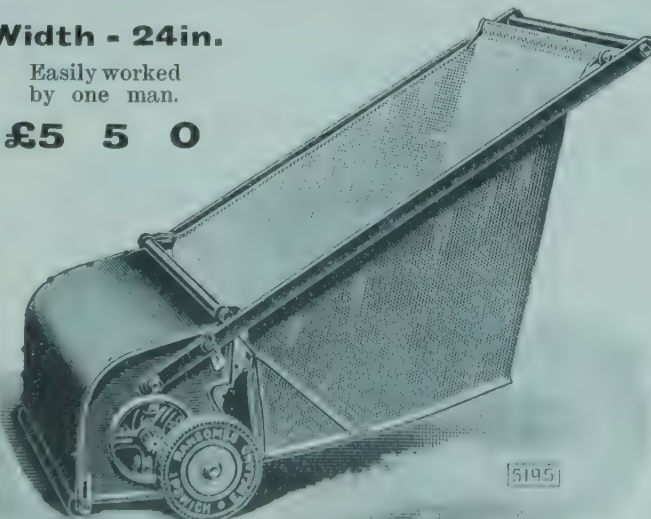
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Trials at Wisley.—The Council of the Royal Horticultural Society have made arrangements for the following subjects to be tried at Wisley in 1912-13. Fruit.—Strawberries, autumn-fruiting: Twenty runners of each; berry-bearing fruits: Three plants of each by February (Strawberries, Raspberries, Gooseberries and Currants excluded). Flowers.—Antirrhinums and Aquilegias: Seeds to be sent in February; Pyrethrums and Gaillardias: Seeds and plants to be sent in February; Violas: Three plants of each to be sent at once; Bearded Irises (Flag or German): Two plants of each to be sent in July, 1913. Vegetables.—Peas: One pint of seed to be sent in February; Potatoes, early and midseason (each variety must be labelled as being "early" or "midseason"): Twenty tubers of each by February. Tomatoes, inside and out: One packet of seed to be sent in February; Turnips: One packet of seed to be sent in February. Everything sent for trial must be named, and the name and address of the sender attached. Address, if sent by post, The Superintendent, Royal Horticultural Society's Wisley Garden, Ripley, Surrey; if sent by rail, The Superintendent, Royal Horticultural Society's Wisley Garden, Horsley Station, L.S.W.R.

"Country Life" for October 5 contains, among other articles, an illustrated account of "Madingley Hall, Cambridgeshire"; "Tales of Country Life: The Seal-berg.—Chapter II.," by Horace G. Hutchinson; "Lord Annesley's Trip in East Africa.—I." (illustrated); "In the Garden: Chrysanthemums for the Outdoor Garden"; "On the Merits of Deer-stalking" (illustrated), by Frank Wallace.

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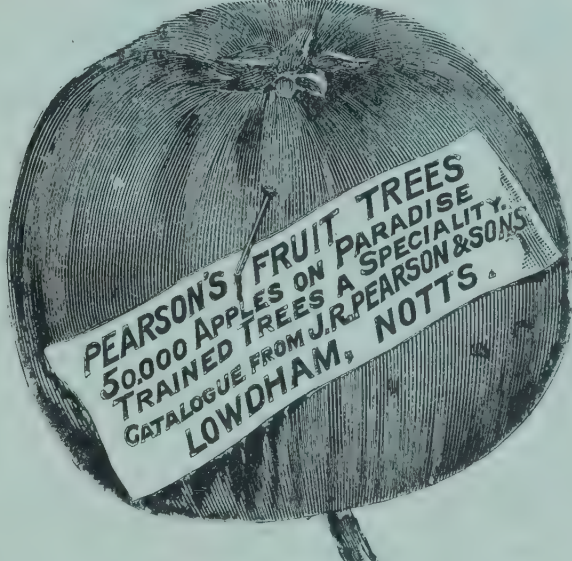
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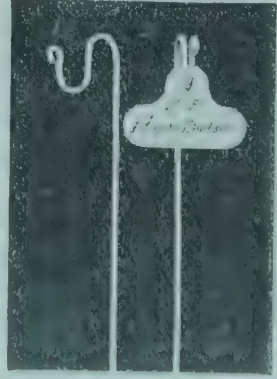
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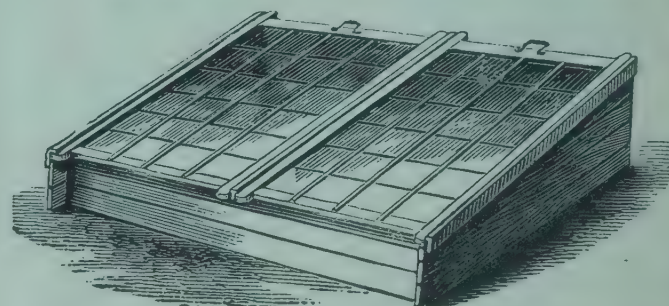
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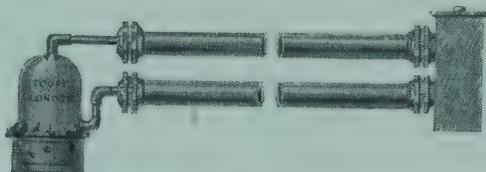
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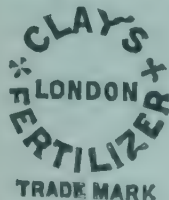
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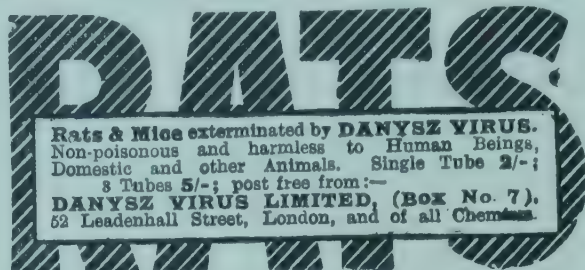
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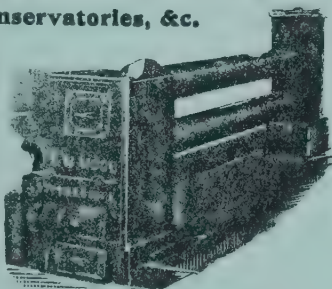
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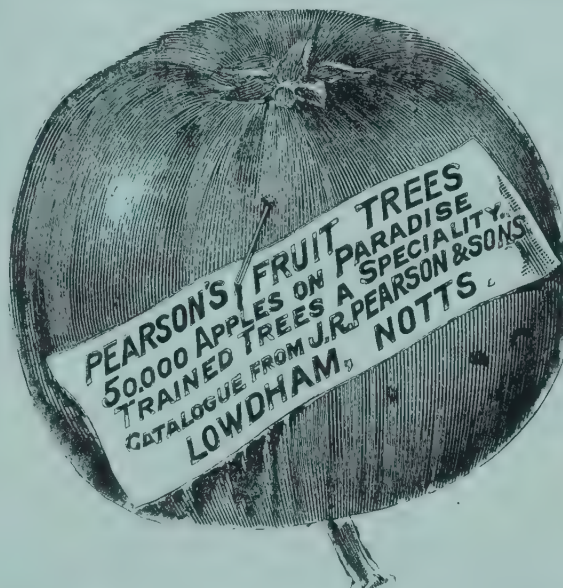
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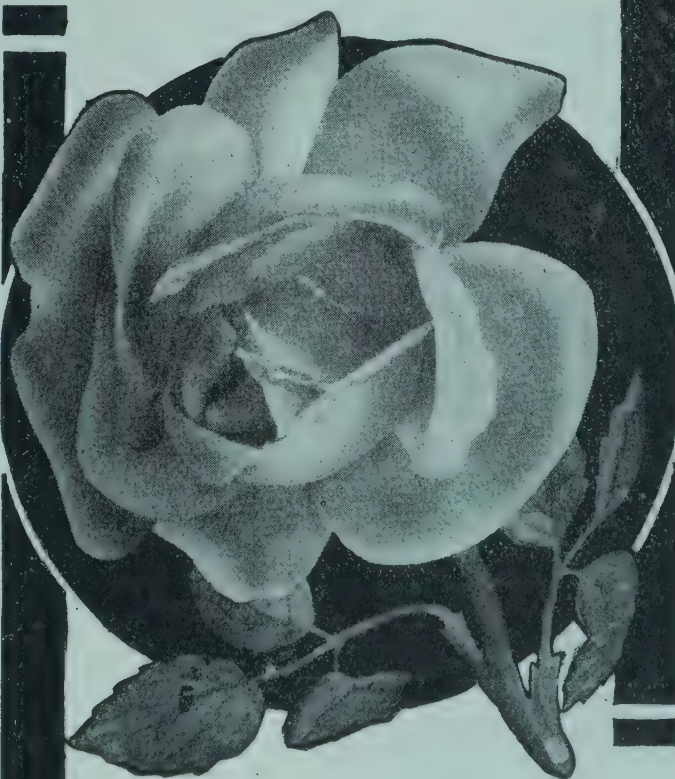
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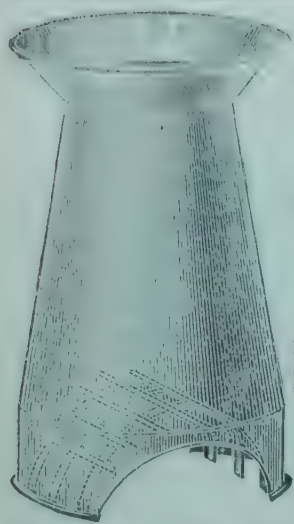
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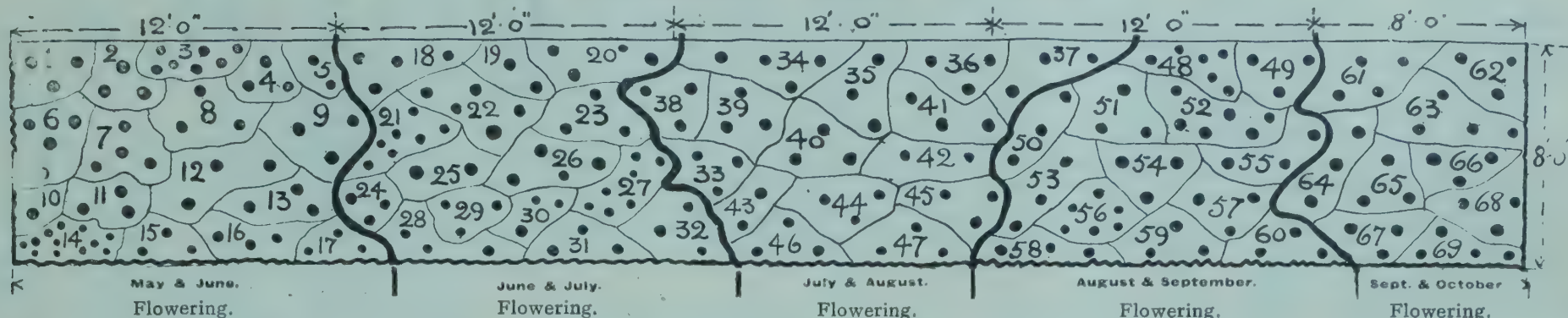
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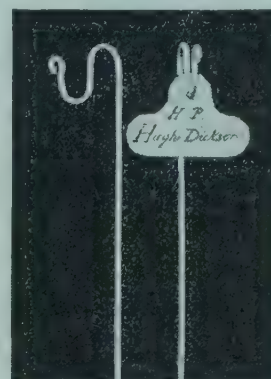
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THE GARDEN.

No. 2134.—VOL. LXXVI.

OCTOBER 12, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.

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NOTES OF THE WEEK.

The Double White-flowered Colchicum.—This is still a rare plant, if it has not been always so in greater or less degree. Indeed, no great quantity is ever to be seen at one time, and the plant is quite alone among its fellows. The flowers are not entirely pure white, though the occasional tinge of flesh colour seen in the early days of their opening do not rob it of any of its value.

Albino Forms of Geranium robertianum.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. Bowles showed the two albino forms of *Geranium robertianum*, one with a red stem, the other with a green, which have maintained themselves for a long time in his garden. Almost all the plants of the latter form appear to be traceable to one or two sources, and the committee would be glad to hear of its occurrence in a wild state.

National Vegetable Society's Show.—This show, held at Watford on Wednesday of last week, and a report of which appears on another page, was the best the society has held, and we are glad to know that it was visited in the evening by a large number of people. As the Earl of Clarendon stated when opening the show, few are aware of the high state to which the cultivation of vegetables has been brought in this country. That an exhibit of vegetables can be made attractive was well demonstrated by Mr. E. Beckett, V.M.H., who surpassed all his previous efforts with an exceedingly beautiful and comprehensive collection.

Adonis amurensis.—We remind those who are desirous of making their sheltered rock gardens as attractive at as early a season as possible of the merits of *Adonis amurensis*. It frequently flowers with the Snowdrops, and has bright golden flowers with all the beauty of the Spring *Adonis*. One may sometimes have it in bloom in January, and its bright flowers are most acceptable in the sunnier, though few, winter days. It is at its best in February in Northern gardens. *A. amurensis* has several varieties, such as the double one and one with a green centre, but none is more desirable than the typical *A. amurensis*. It may still be planted with success.

A Beautiful Autumn Shrub.—*Disanthus cercidifolia* is a native of Japan, and is a close ally of the Hamamelis, or Witch Hazels, though belonging botanically to an entirely different family. The growth and foliage are rather suggestive of a bush of the Judas Tree (*Cercis Siliquastrum*). It is a slender-growing, spreading shrub, reaching in its native country to a height of 8 feet to 10 feet. The cordate leaves are about three inches across, bluish green in summer and distinctly glaucous beneath. It is in autumn when the bushes are most attractive. They then assume a bronzy red

tint, which before the leaves fall changes to rich claret red.

A Beautiful Autumn Bed.—One of the most pleasing beds that we have seen this autumn was a large one filled with the golden-flowered *Calceolaria amplexicaulis*, with a groundwork and broad edging of *Mesembryanthemum cordifolium variegatum*. The pale yellow foliage of this low-growing plant contrasted well with the brilliant yellow flowers of the tall *Calceolarias*. Such a bed would, of course, be beautiful nearly the whole summer, but its fresh and pleasing appearance in the first week in October specially commended it.

The Snowy Mespilus Against Conifers.—When visiting the gardens at Aldenham House, Elstree, last week, we were particularly pleased with a beautiful tree of the Snowy Mespilus, *Amelanchier canadensis*. The foliage had taken on a brilliant red tint, and as the tree had been purposely planted in a bay of conifers, the effect was particularly good. When the tree was in flower in spring, the effect would doubtless be equally good, the sombre hue of the conifers making a fine contrast to the snowy blossoms. Those who are intending to plant trees this autumn should bear this question of contrast well in mind.

Crab Apple Veitch's Scarlet.—There are several hybrid Crabs in commerce, but the above is not so well known as its merits deserve. It was produced by crossing the Red Siberian Crab with Apple King of the Pippins, and the general characters are fairly intermediate. The fruits are highly ornamental, the skin being bright red, changing to a deep crimson on the side facing the sun. They have a somewhat pleasant flavour, and are not to be despised for culinary purposes, particularly where Crab Apple jelly is in demand. When grown as a standard, the tree produces a fine effect both in bloom and in fruit, but the best results are obtained by planting single specimens where its full beauty can be displayed.

Hollow Trees.—In most instances, says Mr. W. J. Bean in the current issue of the *Kew Bulletin*, decayed hollows in trees have their origin in snags left by branches broken off that have rotted back into the trunk because the new bark has not been able to grow over and seal up the wound. Branches removed by design, or broken off by wind or accident, should always be sawn off close to the trunk, and the sawn surface should then be coated over with ordinary coal-tar. If a snag or stump is left, the bark cannot grow over it; damp, fungoid parasites and decay sooner or later follow and gradually find their way towards and eventually into the trunk. Such is the most frequent beginning of cavities in the limbs and trunks of trees. The coating of tar renewed every two or three years makes the wound water-tight and fungus-proof, its object being to serve as a temporary bark until a new natural covering is formed.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

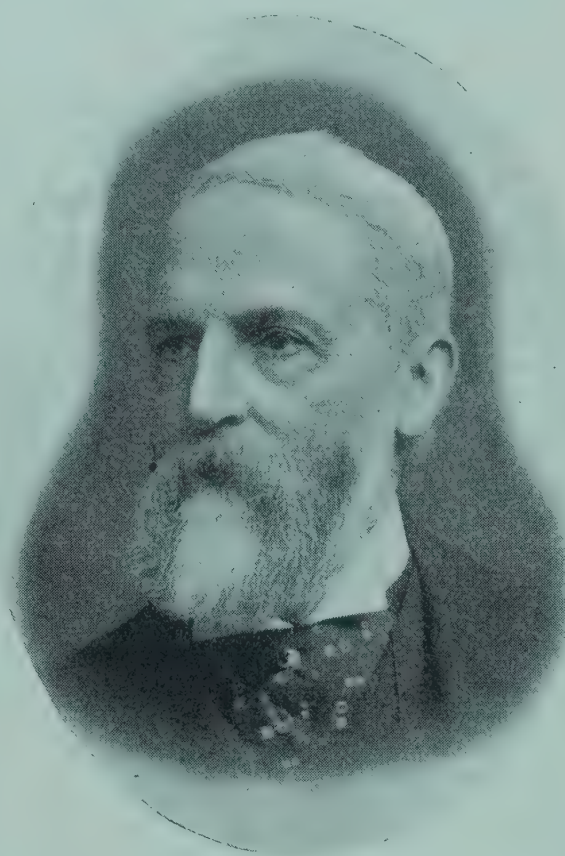
Hardy Fuchsias.—I quite agree with your correspondent "H. P.," page 486, issue September 28, respecting the use of hardy Fuchsias in the garden. They are not grown as extensively as they deserve. There are few kinds of plants more graceful in habit or more free-flowering, and few that require less attention when once planted. In town and suburban gardens, where border space is naturally restricted, Fuchsias should be grown, as they look charming in narrow beds. Some of the varieties are suitable for training on division fences intermixed with other kinds of wall plants. In the Isle of Wight and in Hampshire there are specimens to be seen trained on cottages and growing to a height of nearly twenty feet. In the Bournemouth Public Gardens there are many plants, not all of the true hardy varieties, grown in the borders and left out both winter and summer. They are cut down fairly low every year, and in the summer the branches are long and strong and bear flowers in profusion. Mr. J. B. Stevenson, the Corporation head-gardener, told me recently that he found the treatment to answer well, and the effect is certainly very charming. This district is sheltered, but to my knowledge the Fuchsia does remarkably well in the open borders well up in the Midlands.—G. G.

The Best Apples.—When reading through the article on "The Best Apples and How to Grow Them" in THE GARDEN for September 28, page 491, I was, in my ignorance, rather surprised to find the writer using the word or term "Reinette" to locate a certain type of Apple. Representatives of this class were given as King of Pippins, Cox's Orange Pippin, Russets, Blenheim Orange and Ribston Pippin. Until reading the above-mentioned article I had looked upon the word Reinette as meaning nothing definite as regards the Apple itself, but as being used only to make a name. My source of information is Dr. Hogg's Fruit Manual, and for the sake of those readers who do not see this work and to arouse friendly interest in this part of Apple nomenclature I will quote the definition of the word Reinette from the Manual: "Thomas Fuller, the eminent historian and divine, says, 'When a pepin is planted (*i.e.*, grafted) on a pepin stock, the fruit growing thence is called a Renate.' This, I think, is the origin of the word, Reinette being derived from *Renatus*—renewed or reproduced. A Reinette is therefore a grafted Apple, and a Pippin is a seedling." I should be pleased to see some further notes regarding this word Reinette, and to learn whether some definite rule has been formed regarding its use for classifying Apples.—A. T. C.

Roses with Bad Habits.—In an interesting note in THE GARDEN for September 21, page 474, on this important subject, I am glad to notice that "G. T. W." supports me in my endeavour to uphold General Macarthur both as a mildew-resister and as an otherwise ideal garden Rose. Curiously enough, "C. T.," on the same page, while absolving the variety from a predilection to mildew, complains of its shy-blooming qualities. Here it is one of the freest Roses in the garden, and even on September 28 there were dozens of fine blooms, besides quantities of buds in various stages, on the plants, twenty-five in number, growing in a large circular bed in the garden.

This bed is quartered with Liberty, Mme. Ravary, M. Paul Lede and General Macarthur. All have done splendidly, but the last-named by far the best. Mrs. Sharman Crawford is certainly very prone to the attacks of mildew. This season Killarney has been almost free from this trouble, and so has General Jacqueminot; but Margaret Dickson, as usual, is very badly attacked. Lyon Rose with us has but one fault—its drooping habit. It flowers abundantly, and usually gives very fine colour, but, as with others, varies in this latter respect. After reading "C. T.'s" note I closely examined Una, and can find no trace of mildew on it. It seems conclusive that climate, soil and surroundings have much to do with the behaviour of Roses in general.—C. B., *Linlithgow*.

Rock Garden Plants that Flower in Early Autumn.—*Silene Schafta* is one of the plants which should be added to the brief list given by Mr. E. H. Jenkins in his valuable and suggestive article under the above heading on page 502, issue October 5. It is simply indispensable, and



MR. EDWARD MAWLEY, V.M.H., HON. SECRETARY OF THE NATIONAL ROSE SOCIETY.

is yet in bloom in early October. *Tunica Saxifraga* and *T. olympica* are equally invaluable, and are still in bloom. *Origanum hybridum* is also in flower, and has been for a long time. It is most pleasing with its glaucous leaves and Hop-like heads of little flowers. *Anthemis cupaniana* makes a second bloom at this season, and is fine over a wall or on rockwork of some size. The old *Viola cornuta* and its several varieties are almost continuous blooming in summer and autumn. The old double *Helianthemum amabile*, commonly known as Mrs. C. Earle, is giving more or less bloom all the autumn; the little *Astrantias* minor and gracilis are good for autumn flower; and several of the *Erodiums*, such as *macradenum*, *pelargonifolium* and *cheilanthifolium*, are excellent. Late *Ericas* or *Heaths* and the forms of the common *Calluna vulgaris* are beyond praise for autumn bloom, and the *Menziesias* give flower as well. *Phuopsis* or *Crucianella stylosa*, though unpleasantly odorous at nights and in wet weather, is very useful,

and I find that *Cytisus schipkaensis* gives a succession of flowers from June until October here. *Æthionemas grandiflorum* and *persicum* still give bloom all the autumn, and *Geranium lancastriense* is rarely out of flower.—S. ARNOTT, *Dumfries*.

The Twelve Best Climbing Roses.—"G. B. W.'s" article on these in your issue of September 21, page 475, ends with the hope that his remarks on this interesting subject may call forth others. I feel that I am (or must be, in his opinion, at any rate) somewhat handicapped, inasmuch as I cannot thank heaven that I am not a rosarian, and must even plead guilty to that apparently greater sin of having once been (if I am not now) an exhibitor. Situated, therefore, as I find myself, it would be presumptuous to think that I can possibly improve on his list of the twelve best climbing Roses. I will only suggest that my list might be helpful if anyone wants more than twelve, or if he has any of those unaccountable prejudices that make or mar the taste of rosarians and exhibitors, and that will make him hesitate before ordering any one of "G. B. W.'s" dozen. Having said so much, let me hasten to congratulate "G. B. W." on his list. It is a real good dozen, but it reads a little curiously having regard to his conditions. They were (1) fragrance and (2) continuity of bloom. Six out of the twelve fail to pass the first test, and four out of the twelve fail with regard to the second. It is possible to compile a list of twelve climbing Roses that will have fragrance and continuity of bloom—that is to say, will flower more than once; but they might be found to fail in another requisite of a climbing Rose, namely, vigour. *Lina Schmidt Michel*, *Johanna Sebus* and *Trier* are cases in point. They are all in flower with me as I write, and are fragrant, particularly *Johanna Sebus*, which has a fragrance that few Roses can equal; but they are pillar Roses, and will not, as a rule, exceed 10 feet, *Trier* even less than that. Warned by "G. B. W.'s" example, I will not set down definitions or "characteristics" that the Roses cannot comply with, neither will I endeavour to place them in order of merit—that savours too much of the exhibition; but just in plain alphabetical order I submit the names of twelve climbing Roses: *American Pillar*, *Ard's Rover*, *Blush Rambler*, *Climbing Caroline Testout*, *Climbing Souvenir de Pierre Notting*, *Evangeline*, *Hiawatha*, *Lady Godiva*, *Mme. Alfred Carrière*, *Sarah Bernhardt*, *Tausendschön* and *Tea Rambler*. Of this list five will be found in "G. B. W.'s" selection, so nothing further need be said of them. Of the remaining seven two are new Roses, but I can recommend both of them. *Sarah Bernhardt* I have known for three years, and the more I see of it the better I like it. I have had three distinct crops on my plants this year. It is undoubtedly the best climber of its colour—a scarlet crimson that does not blue with age. The climbing sport of *Souvenir de Pierre Notting* speaks for itself. I doubt if there is a freer-flowering yellow than the type, and the sport seems to give us both larger and better flowers, and promises to be a good grower. On the ground of fragrance and continuous flowering, and I think I may add vigour of growth, I suggest List 1 beats List 2 in nearly every case; but, after all, I do not for one moment expect "G. B. W." to think so—*De gustibus non disputandum*—and he has a perfect right to his opinion. I should be much obliged to him if he will tell me where I can get *Marie Bret*, his No. 3, and what he thinks of my suggestions.—HERBERT E. MOLYNEUX.

Rose Psyche as a Pillar variety.—This Rose is a good example of a pillar Rose as distinct from a rambler Rose. It does not make long, rampant growths, as ramblers usually do, but will clothe a pillar splendidly up to 7 feet or 8 feet, the latter being the height of the support shown in the illustration. It is a vigorous Rose, with clean, glossy foliage and pale rosy pink flowers. A strong point in its favour is its ability to withstand mildew.—C. T., *Highgate*.

A Giant Groundsel.—Of several species of *Senecio* introduced from China during the present century, the one named *Senecio Clivorum* is the most popular. Being unusually vigorous and quite a giant in growth, it is not suitable for a small border. Rather should *S. Clivorum* be planted in the pleasure grounds, in masses by the lakeside, and in open places by the side of woodland walks. Wherever planted, good cultivation is necessary to obtain the plants in true character. The soil must be deep, moist and rich. Such conditions will result in *Senecio Clivorum* with inflorescences 4 feet in height and a mass of striking, heart-shaped leaves, each one exceeding a foot across. The flowers are golden yellow in colour, the flowering season August and September. When growing under favourable conditions the seeds fall, and by spring there are crowds of small plants requiring attention surrounding the parent rootstocks. Division of the roots or crowns in late October or March also forms a ready means of propagation.—A. O.

Greenhouse Plants for Winter Flowers.—Now and during the next few weeks is the time when one has to consider what to pot for flowering during winter or early spring. *Schizanthus* is one of the prettiest plants, of most elegant growth, and no plant is better adapted for a cool or intermediate greenhouse. Potted now into 5-inch pots in good, rich, sandy loam, they will flower early in the year. Plants of the mixed hybrids provide quite a variety of colour, most of the flowers being copiously spotted. Two other splendid plants which flower most freely and give a beautiful tone to the greenhouse and conservatory are *Primula hybrida* and the small, free-flowering variety *P. stellata*. These plants, potted into 3½-inch or 4-inch pots in a compost of three parts loam to one of well-decayed stable manure, adding a liberal supply of sand or finely-ground old mortar, will soon make fine specimens. As soon as the pots are full of roots, they should be moved on into 6-inch pots, using a similar compost to that previously mentioned.—J. L. E.

FORTHCOMING EVENTS.

October 14.—United Horticultural Benefit and Provident Society's Committee Meeting.

October 16.—North of England Horticultural Society's Meeting at Leeds. Lecture by the Rev. J. B. Hall on "Apple Culture." Wargrave and District Gardeners' Association's Meeting.

WORKERS AMONG THE FLOWERS.

MR. EDWARD MAWLEY, V.M.H.

IT would be exceedingly difficult to find in the world of horticulture, and particularly that section specially interested in Roses, a man who is more highly esteemed or more widely respected than Mr. Edward Mawley, V.M.H., the hon. secretary of the National Rose Society. For nearly forty years Mr. Mawley

that he used to exhibit at all the National Rose Society's shows as well as at local and other exhibitions. At that time his prowess as an exhibitor, and, incidentally, the winner of first prizes, was so well known that his friends used to refer to him as the "champion of the light-weights."

When he moved to Berkhamsted, Mr. Mawley increased his collection of exhibition Roses to about two thousand bushes, and this enabled him to exhibit in larger classes with continued success. In 1910 the National Rose Society bestowed upon him the Dean Hole Medal, which is awarded from time to time, as occasion may arise, to anyone who has rendered special service in forwarding the cultivation of the Rose.

But although Mr. Mawley has done such yeoman service for the Queen of Flowers, he has found time to enter the lists on behalf of the less universally beloved Dahlia, and, indeed, has been interested in that flower almost as long as in the Rose. For many years he acted as hon. treasurer for the National Dahlia Society, and on the death of his friend, Mr. Girdlestone, he became president of that society, a post he held until last year, when he resigned so that he could devote more time to the National Rose Society. Show Dahlias were his first favourites, but later he became more particularly interested in the Cactus section, and in recent years the single varieties have claimed his attention. He has been a most successful raiser of these, and secured certificates from the National Dahlia Society for a number of his seedlings.

In meteorological circles Mr. Mawley is almost, if not quite, as well known as he is among horticulturists. For over thirty years he was a member of the Council of the Royal Meteorological Society, for two years secretary to that Council, and on several occasions held the position of vice-president and ultimately became president, election to these positions being for two years. For over twenty years he acted as phenological recorder to the society, so that it will be readily seen that he has devoted no little time to a fascinating pursuit. His meteorological observatory, which he has maintained for nearly forty years, has always been, and still is, the best private one in the country. In 1904 the Council of the Royal Horticultural Society conferred upon him the Victoria Medal of Horticulture in recognition of his services in the interests of gardening, an honour that was thoroughly deserved. As a private individual, as well as in his official capacities, Mr. Mawley is an exceedingly charming man, one who is ever ready to assist in any movement that is likely to benefit the flowers that he loves so fully, and we know that his numerous and world-wide friends will join us in the wish that he may long be spared to carry on his work, which to him, as to every enthusiast, is a labour of love.



ROSE PSYCHE AS A PILLAR IN A NORTH LONDON GARDEN.

has taken an active interest in the Queen of Flowers. It was at Croydon that he first commenced to grow Roses, somewhere about the year 1875 and in 1877 he became co-hon. secretary of the National Rose Society with the late Rev. H. H. D'ombrain. On the death of that esteemed rosarian in 1905, Mr. Mawley took over the full duties of hon. secretary, a position he has admirably filled ever since. From the commencement of his Rose-growing career at Croydon until he left there for Berkhamsted in 1885 he never had more than 400 plants, yet so keen was he in cultivating them

PLANNING A ROSE GARDEN. A VISIT TO SOME IRISH ROSE GARDENS.

IN many a garden scheme it is found desirable that the Rose garden should be somewhat detached from other portions. That it should be so is not a bad general rule, because it is only for about three months in the year that it can be at its best, while the bare appearance in winter and the usual coating of manure do not make for beauty in the garden landscape. But if the Rose garden is in some retired place and fenced with a good Yew hedge, it need not be visited at a time when there is no display of bloom, and yet it has the shelter that is always desirable.

The plan shows such a garden of about a hundred feet square, with two equal divisions only separated by a wide grass path, with a central sundial. The paths are all of grass, for not only is the green of grass a better setting than the colour of gravel, but the grass is dry for walking upon during the summer months when the Roses are at their best. Four seats on paved platforms are notched into the Yew hedge, and four of the beds, two and two on either side as seen from the seats, have a central ornament on a stone-paved base. These may be ornamental vases, with tops rather than for plants, or, perhaps better, suitable figures in stone or lead.

The Roses, as shown on half the plan of the garden, are chosen so as to make a good effect of colour. On each side the four angle beds have kinds with deep red bloom, lighter coloured as to the inward facing margin. The large, outer middle beds have a main planting of the fine Zephyrine Droughin, a Rose that, well known in France, has only of late found its place in English estimation. Among garden Roses it is indispensable. Free in growth, lovely in form and rosy red colour and of sweetest scent, it is a Rose for every garden. The two beds nearest the sundial are of shades of pink, planted with Lady Ashtown and Caroline Testout, two of the best Roses for bedding purposes. The four square beds with the central ornament are of Roses nearly white, flushed and shaded with tender pink. The whole of the beds have an irregular edging, about eighteen inches wide, of *Stachys lanata*. This edging serves not only to enhance the beauty of the various red and pink colourings, but to fill empty space and to emphasise the lines of the design.

G. JEKYLL.

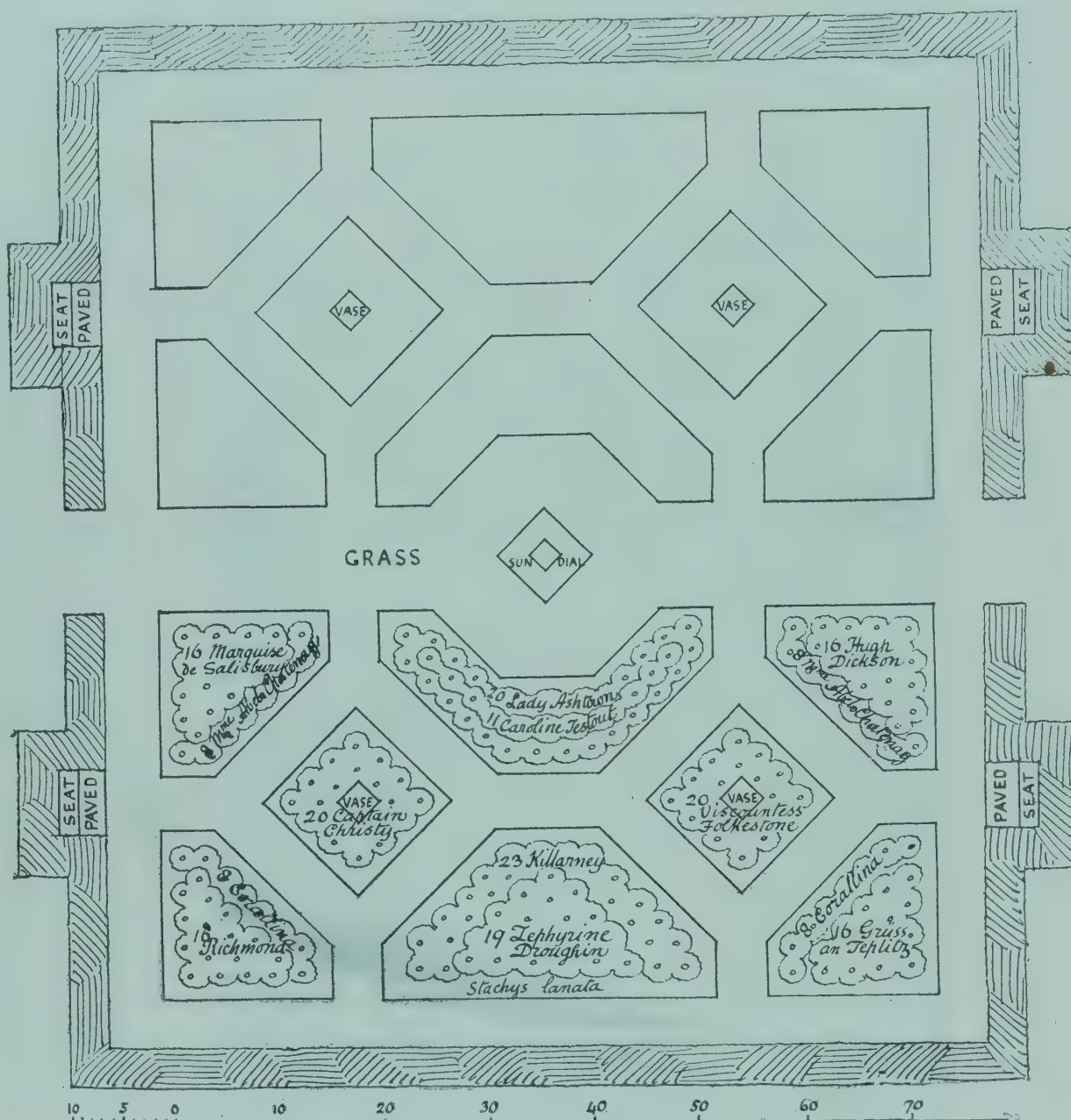
FOR the National Rose Society to hold its provincial exhibition this year at Belfast was a happy move. Being termed "National," the society must justify its claim to the title by including Ireland within its venue, and after experiencing the easiness of the journey, the cordial welcome accorded and the excellence of the management of the exhibition, one confidently anticipates that it will not be long before the National Rose Society pays its second visit to Ireland. But it was a happy move in another respect; it enabled

done more to increase the number of Hybrid Teas now under cultivation, especially the so-called "exhibition" varieties? To name but half-a-dozen—Bessie Brown, Dean Hole, Dr. O'Donel Browne, Florence Pemberton, Mildred Grant and William Shean. What would be the position of the grower of specimen blooms if he attempted to compete without having them in his collection? And added to these, the cultivator of decorative Roses, which are now so popular, would surely feel the loss of Killarney, Liberty and Betty, and the series of single Teas sent out by this firm. Therefore, in anticipation of seeing good novelties, we visited the fields of Roses at Newtownards, and we were not disappointed. Of the Roses new and already in commerce we saw many, and made a note of the following:

Mrs. Cornwallis West (1911), flowers large and globular, white ground, shaded rosy pink. The growth of the maiden plants was strong and stout, running up 4 feet to 5 feet high, with dark green, leathery foliage. Although the blooms on maiden plants were good, this variety will probably be best as a cut-back, and one thinks it will before long be among the best twenty-four. Lady Barham (1911) is another good one; coral pink, globular, growth stiff, erect, but not tall. Mabel Drew (1911).—The name, one surmises, is, in the opinion of the raiser, an indication of its merit; a back-row exhibition flower, creamy yellow. Another Rose that attracted us was Ferniehurst (1911), the colour difficult to describe, a sort of rose pink shaded copper.

But it was the seedlings and those Roses of the present year that gave us most interest, the first being George Dickson (1912), a vigorous grower as a maiden, with blooms of good shape, imbricated, an enlarged Charles Lefebvre, reminding us

of W. E. Lippiatt and Victor Hugo. H. V. Machin was another grand red, brighter and perhaps finer in flower than the previous one. The blooms were carried erect on short, stiff stems, but the habit apparently was not so vigorous as might be desired. Irish Flame, like H. V. Machin, has already been before the public, and on account of its distinctive colouring will be popular for decorative purposes. In addition to these there were some attractive seedlings of the Rayon d'Or type. But the one that in our opinion stood out above all others was Mrs. S. T. Wright, a seedling of great promise, blooms of medium size, colour deep yellow, almost orange, high-pointed centre, growth vigorous and branching.



PLAN OF A ROSE GARDEN, ARRANGED WITH A VIEW TO COLOUR EFFECT. THE TOP HALF SHOULD BE PLANTED AS INDICATED FOR THE LOWER PORTION.

the English contingent to view at the same time the three chief centres of Roses in Ireland—Messrs. Alex. Dickson and Sons of Newtownards, Messrs. Hugh Dickson of Belmont, and Messrs. S. McGredy and Son of Portadown—and the purport of this article is to give a few brief notes of a flying visit paid to each of them.

Newtownards.—Messrs. Alex. Dickson and Sons were the pioneers in the Emerald Isle in raising new Roses. This firm has so enriched our gardens with new varieties that the term "Dickson's Roses" is only another way—a shorter way—of designating the Roses distributed by them. Apart from the Rose-growers of Lyons, has any firm

Belmont.—As all Rosarians are aware, Messrs. Hugh Dickson of Belmont is another firm that has given much attention to the raising of seedling Roses. The brothers, a few years ago, made it their especial work to introduce deep red and crimson into the colour of the Hybrid Teas, J. B. Clark, Hugh Dickson and Leslie Holland being some of their results, and now we have in King George V. (1912) the darkest of all the red Hybrid Teas; colour a rich velvety crimson like Charles Lefèvre, globular in shape, growth on maidens very vigorous.

But in addition to reds, this firm is producing good salmons of the Lyon Rose type. Mrs. Sam Ross (1912) is one of these. The flowers are light chamois yellow, blooms large, full and sweetly perfumed; habit free-flowering, branching, and apparently of good constitution. A characteristic of the large number of seedlings on trial is their size and depth of petal. Of those introduced to public notice, Colleen will probably be one of the largest Roses. It was exhibited at the National Rose Society's show at Belfast this year. In colour it is not unlike Rose Her Majesty, but with high-pointed centre, petals thick, very full, vigorous growth. But an even larger and finer Rose is yet to come, a magnificent lemon-coloured Frau Karl Druschki, apparently the biggest of all Roses yet raised, strong in growth and very free-flowering. Another noticeable Rose, if one's notes are correct, was Mrs. Hugh Dickson, a Pernetiana, deep, dazzling, orange red. The name is indicative of its merit. We also noted some excellent yellows of the Melanie Soupert type, and more good reds as well, several of which will prove useful to the grower of specimen blooms; and one left the inspection of the seedlings of Messrs. Hugh Dickson with the feeling that before long the size of the exhibition boxes will have to be increased.

Portadown.—Messrs. S. McGredy and Son of Portadown have given us in the past some good Roses and, to be candid, some that have not fulfilled our expectations, or, shall we say, they do not feel at home in the English climate. However, we shall always be grateful to them for providing us with two such excellent Roses as (1) Mrs. Alfred Tate, which in one's own garden has been admired by many visitors, and even now, at the end of September, is as good as, if not better than, at the height of the season; and (2) Mrs. Arthur Coxhead, a Rose which should be in everybody's garden, one of the sweetest-scented Roses we have, perfect in shape, and always in bloom right up to late October.

Each of the three eminent Irish raisers of seedlings is good in his special line, and if we observed size and substance in the seedlings of Messrs. Hugh Dickson, we found that the seedlings of Messrs. S. McGredy and Son were apparently pre-eminent in yellow shades of colour. Some were decidedly orange. When the

break of 35,000 seedlings came into view, the effect was startling. Here were developments of the Pernetiana and Lyon Rose types that were not even dreamt of five years ago, and M. Pernet-Ducher will have to look to his laurels. The first seedling that beckoned us, and we were bound to respond, was Mrs. C. F. Pearson, orange yellow, flushed with red, a distinct and striking colour, the form like A. R. Goodwin. Another was an excellent free-flowering decorative variety named Mrs. Vanderbilt, of a lovely orange salmon shade; also Lady Mary Ward, yellow orange. The raisers have a very high opinion of Colleen, an exhibition Rose of much vigour, large bloom, pointed centre, good shape, colour soft pink. But among such a

on slender stems and very free. As we moved up and down the rows inspecting in this group several hundred plants, every flower seemed perfect in shape and without a blemish, notwithstanding the damp season, which is somewhat surprising, because, unlike Frau Karl Druschki, the petals appeared thin in texture. If it does as well elsewhere as it does at home, it will be one of the best white Roses both for exhibition and the garden.

JOSEPH H. PEMBERTON.

A NEW TEA ROSE: LITTLE DORRIT.

LITTLE DORRIT is a beautiful Tea Rose with conical-shaped blooms that have aptly been described as a mingling of nasturtium red, apricot and cream, with a deeper shade of red on the outer petals. When shown by Messrs. George Paul and Son, Cheshunt, before the National Rose Society at the autumn show this year, it created something in the nature of a mild sensation among Rose experts, and by way of expressing a high opinion of its merits it was awarded the society's silver-gilt medal. The Royal Horticultural Society have since shown their appreciation of this novelty by granting an award of merit at the meeting held on September 24. It is a pretty Rose, with shapely buds and perfect bloom, as depicted in the illustration on this page.



ROSE LITTLE DORRIT, A NEW VARIETY AWARDED A SILVER-GILT MEDAL AT THE NATIONAL ROSE SOCIETY'S AUTUMN SHOW.

THE BEST ROSES FOR BEDDING.

EACH year it is becoming more difficult to make a selection of Roses for planting in beds. Naturally, one wishes to have the best, and oftentimes rarity or novelty is no obstacle, providing the desired colour and quality are attained. Moreover, in so many large gardens there are established beds of the leading sorts, or, rather, those that were considered best at the time of planting, and when new beds are contemplated, other varieties are sought after. It is generally admitted that catalogue descriptions do not assist one to arrive at a correct estimate of the value of the numerous Roses for the special

purpose of bedding or massing, so that an independent opinion by one who has grown all the varieties here mentioned may be serviceable to those readers who contemplate forming new beds this coming planting season. The list is rather a lengthy one, as I am quite aware that there is diversity of tastes. I can recommend all the varieties as being quite excellent for bedding purposes, and most of them produce their blooms upon erect stalks, which is such a desirable attribute in a Rose.

Rose-lovers are still in quest of a good scarlet and crimson, but we are grateful for what raisers have given us, as we know full well how difficult it is to obtain one's ideal. In golden yellows we are well supplied now by the addition of Rayon d'Or

number of attractive seedlings there were two unnamed ones that took our fancy most. The first was a full, globular, large exhibition flower of vigorous growth, long footstalk, erect, colour of Lady Alice Stanley and habit of Caroline Testout. The second was a sort of cream-coloured Frau Karl Druschki, a promising seedling in every respect. Leaving the new seedlings, we were taken to see British Queen (see illustration on page 518), a white variety that the writer has seen at Portadown for two or three seasons. Messrs. McGredy have a large batch of it, and seen in the mass as we approached it from afar the sight was lovely, a veritable snowstorm. In habit it is bushy and branching, flowers pointed, globular, produced

and when we are able to procure Mrs. George Beckwith we shall indeed have a most marvellous colour in this section, one whose flowers are several shades deeper than Rayon d'Or. By the courtesy of Mr. George Beckwith I was able to compare the two quite recently. This new-comer is of the wonderful pernetiana group, which its raiser has evolved from Soleil d'Or. I have placed the varieties as near in order of merit as I could, and have indicated by (d), (m) and (t) their habit of growth, which signifies dwarf, medium and tall, and they are grouped approximately to colour.

White.—(t) British Queen, H.T.; (t) Frau Karl Druschki, H.P.; (m) Molly Sharman Crawford, T.; (t) Mrs. Herbert Stevens, T.; and (m) Yvonne Rabier, Polyantha.

Blush and Flesh Colour.—(t) Pharisäer, H.T.; (t) La Tosca, H.T.; (m) Prince de Bulgarie, H.T.; (m) Admiral Dewey, H.T.; (m) Princesse Mertchersky, H.T.; (m) Antoine Rivoire, H.T.; (m) Augustine Guinoisseau, H.T.; (t) G. Nabonnand, T.; and (m) Viscountess Folkestone, H.T.

Cream.—(m) Entente Cordiale, (m) Mrs. Harold Brocklebank, (t) Peace, (m) Mrs. D. McKee, (m) Mrs. A. Munt, (m) Mme. Pernet-Ducher and (t) Marie van Houtte.

Pale Yellow.—(m) Souvenir de Gustave Prat, H.T.; (m) Mme. Hoste, T.; (m) Alexander Hill Gray, T.; (m) Natalie Bottner, H.T.; (m) Paula, T.; (t) Miss A. de Rothschild, T.; (m) Mme. C. Guinoisseau, T.; (t) Gustave Regis, H.T.; and (d) Sulphurea, T.

Deep Yellow, Golden and Apricot.—(m) Rayon d'Or, pernetiana; (m) Sunburst, H.T.; (m) Duchess of Wellington, H.T.; (m) Mme. Ravary, H.T.; (m) Lady Hillingdon, T.; (d) Marquise de Sinety, H.T.; (m) Melody, H.T.; (m) Lady Greenall, H.T.; (m) Mrs. A. R. Waddell, H.T.; (d) Le Progrès, H.T.; (m) James Coey, H.T.; (m) Lady Roberts, T.; and (t) Lady Downe, H.T.

Buff and Mixed Yellowish and Cinnamon Shades.—(m) Arthur R. Goodwin, pernetiana; (m) Lyons Rose, pernetiana; (m) Melanie Soupert, H.T.; (d) Mrs. Aaron Ward, H.T.; (d) Paul Lede, H.T.; (d) Aurore, China; (m) Comtesse du Cayla, China; and (m) Queen Nab, China.

Salmon Pink.—(m) Mme. Second Weber, H.T.; (m) Mrs. Geo. Shawyer, H.T.; (m) Joseph Hill, H.T.; (m) Mrs. Alfred Tate, H.T.; (t) Betty, H.T.; (m) Lady Pirrie, H.T.; and (m) Mrs. W. Christie Miller, H.T.

Pink.—(m) Lady Ashtown, H.T.; (m) Mme. Leon Pain, H.T.; (m) Caroline Testout, H.T.; (t) Mme. Abel Chatenay, H.T.; (m) Mrs. E. G. Hill, H.T.; (m) Grand Duc de Luxembourg, H.T.; (d) Joseph Lowe, H.T.; (m) La France, H.T.; and (d) Maman Turbat, Polyantha.

Rose.—(m) Lady Alice Stanley, H.T.; (m) Mme. Jules Grolez, H.T.; (t) Gustav Grunerwald, H.T.; (t) Laurent Carle, H.T.; (m) Rose Queen, H.T.; (t) Kronprinzessin Cecilie, H.T.; (d) Mme. Maurice de Luze, H.T.; (m) Colonel Leclerc,

H.T.; (m) André Gamon, H.T.; (m) Lady Battersea, H.T.; (t) Mrs. Harvey Thomas, H.T.; (m) Countess of Shaftesbury, H.T.; (d) Camoens, H.T.; and (d) Orleans Rose, Polyantha.

Light Red.—(m) George C. Waud, H.T.; (m) Captain Hayward, H.P.; (d) Papa Gontier, T.; and (m) General Schablikine, T.

Medium Reds and Scarlets.—(t) General Macarthur, H.T.; (m) Lieutenant Chauré, H.T.; (m) Leslie Holland, H.T.; (d) Liberty, H.T.; (m) Richmond, H.T.; (m) Ecarlate, H.T.; (d) Jessie, Polyantha; (d) Leuchtfeuer, China; (m) Mrs. E. Powell, H.T.; (m) Mrs. Walter Easlea, H.T.; (m) Commander Jules Gravereaux, H.P.; (m) President Vignet, H.T.; (m) Fabvier, China; and (d) Charlotte Klemm, China.

Dark Crimson and Maroon.—(m) Edward Mawley, H.T.; (m) Château de Clos Vougeot,



THE NEW ROSE EDWARD BOHANE THAT GAINED AN AWARD OF MERIT FROM THE ROYAL HORTICULTURAL SOCIETY ON SEPTEMBER 24.

H.T.; (d) Victor Hugo, H.P.; (m) Marquise de Salisbury, H.T.; and (d) Princesse de Sagan, T.

ROSE EDWARD BOHANE.

THIS has been an exceptional year for new Roses of really sterling merit, and one of the best of this season's novelties is Edward Bohane, illustrated above. The Royal Horticultural Society have shown their appreciation of this variety by granting an award of merit; it was also awarded a gold medal at the Royal Lancashire Show. This novelty is being sent out by Messrs. Alex. Dickson of Newtownards, but as the stock is limited, we are asked to announce that it will not be offered to the public until 1914. It belongs to the Hybrid Tea class, and carries bold flowers of deep cherry red hue.

CLIMBING ROSES WITH LARGE BLOOMS.

I SHOULD be one of the last to disparage the beautiful Rambler Roses that have wrought such a marvellous change over the modern Rose garden, but there is such a thing as allowing these to usurp the place of the large-flowered climbers of which our collection is so rich.

Ramblers are all right upon arches and pergolas, but I think walls and fences can be better clothed with the strong-growing Teas, Hybrid Teas and Noisettes. What can be compared with a well-developed plant of Rêve d'Or clambering over a lofty south or west wall? It is a grand, fast-growing golden Rose which should be more

frequently planted, but it is impatient of the pruning-shears; indeed, it is well almost to neglect it for a few years as far as pruning is concerned, and when it is pruned just shorten back the laterals a little and keep as much of the old wood as remains sound through the winter.

These glorious old Roses are a real joy to behold, and if we have the patience to wait for their development, they will richly reward us with a wealth of bloom.

There is a tendency at the present day to demand that the walls should be covered immediately, and we plant long-shooted, pot-grown plants very often, thinking this will help us to obtain our desire. But it is all a huge mistake. If the plants do attain a fair height, they are most miserably gaunt and ugly, and it is by far the better plan to commence with a sturdy plant from the open and prune it back to 2 feet the first year; then we may have during that summer quite a vigorous growth ready for a good crop of bloom the following year.

Of course, it is necessary to prepare well for these Roses. Give the border almost as much care as though we were planting a Grape Vine; that is, dig it deeply, fully 3 feet, but keep the subsoil in its own place and see that plenty of good farmyard manure is added, also some basic slag,

which is a splendid reserve of food for some years. A handful or two of bone-flour also, given at the time of planting, will add a quality to the blooms that will be very gratifying.

There is no reason whatever why we should not have grand exhibition Roses from our walls, because we have everything in our favour, that is, thoroughly-ripened wood. We may have splendid blooms of Climbing Kaiserin Augusta Victoria far surpassing the original kind if we take the trouble to disbud a little. I am no advocate for nailing these Roses in so wonderfully exact. Rather would I allow some branches to fall away a bit, and to do this a few long spikes driven into the wall will serve to fasten such branches to. The walls appear less formal if this is done, and the growths are covered with bloom.

No one should miss an opportunity of planting *Duchesse d'Auerstœdt*. It is one of the best of the deep golden yellows, and is better for outside walls than *Climbing Perle des Jardins*, whose growths mildew so badly.

Dr. Rouges is another beautiful *Rose*, with quaint Cactus Dahlia-like blooms of lovely reddish colour with orange shading. It is a most profuse bloomer. *Mme. Hector Lenilliot* and *Mme. Charles Monnier* are both very fine as yellowish kinds. A splendid red is *Climbing Papa Gontier*, which yields a great quantity of its very shapely buds that are always useful. *Climbing Liberty* and *Climbing Richmond* are both good reds. *Florence Haswell Veitch* will never fail to please, because not only has it a brilliant scarlet velvety shaded bloom, but it is so deliciously fragrant. These last three would be best planted against a moderately high wall, as they would not grow so rampantly as *Dr. Rouges* and *Duchesse d'Auerstœdt*.

A *Rose* that gives some superb blooms, though very sparsely, is *E. Veyrat Hermanos*. This should be planted where it can ramble away like *Rêve d'Or*, with similar treatment as regards pruning. The blooms are superb, reminding one of *Comtesse de Nadaillac*, but they need disbudding; in fact, it would pay to do this more frequently with these large-flowered kinds.

Billiard et Barré is a very rich yellow and a fine climber. It is much better used in this way than as a bedder. *Belle Lyonnaise* is another fine old sort; so also is *Celine Forestier*, which gives sheaves of its curious flat sulphur yellow flowers quite early in the season. A grand pink is *Climbing Caroline Testout*, perhaps rather shy, but good when it can ramble away, as it will. *Climbing Captain Christy*, though scentless, is worthy of a place; so also is *Climbing Lady Ashtown* if it is sprayed frequently to check its mildew tendency. *Lady Waterlow* is a superb variety, and should be in every garden; if not on a wall, then as a free bush.

I do not see why the *Lyon Rose* should not be used as a climber. I am planting it in this way and also as an espalier *Rose*, a form to which I imagine its somewhat erratic growths are peculiarly fitted. A favourite *Rose* of mine is *Souvenir de Mme. Joseph Metral*. Every bloom is as big as *Mamie* and of a delightful cerise colour, and it grows most freely. *Noella Nabonnand* is another beauty and as fragrant as it is beautiful, its huge semi-double flowers being quite gorgeous in effect.

I cannot name all that are good, but I just mention the foregoing, which if planted will enrich the garden very considerably, and a place should be found for them all if possible. Some truly beautiful effects are now and then seen in country gardens where some of the foregoing climbing *Roses* are allowed to cover coach-houses, tool-sheds and similar positions, for then they all contribute towards the beautifying of the place.

DANECROFT.

EXHIBITING ROSES IN BASKETS.

ONE of the most pleasing features of recent exhibitions of the National *Rose Society* has been seen in the well-contested classes for *Roses*—not on show-boards, but shown in a far less formal way, and that is in baskets. That *Roses* when so exhibited are infinitely more effective and natural no one will deny, and the *Rose*-loving public must feel that they owe a debt of gratitude to the Rev. J. H. Pemberton, president of the National *Rose Society*, who is responsible for having popularised this method of exhibiting the *Queen of Flowers*. *Roses* of many classes are amenable to this informal mode of showing,



A BASKET OF ROSE LYON EXHIBITED AT THE NATIONAL ROSE SOCIETY'S SUMMER SHOW IN LONDON.

the singles, such as *Irish Elegance*, associated with their own foliage, being particularly graceful so long as the blooms keep fresh. Some of the newer *Roses* with comparatively small flowers, notably the new race known as *pernetianas*, would be quite lost on the show-board, but are seen to the best advantage when shown in baskets.

In the accompanying illustration is seen a basket of the *Lyon Rose*, shown by Mr. Chaplin at the National *Rose Society's* Summer Show. The basket in question, although containing blooms of the finest quality, would have been even more effective if buds as well as expanded flowers had been shown, and this, we think, would more closely carry out the wishes that the Rev. J. H. Pemberton had in mind when advocating this admirable method of showing *Roses*.

NEW BREAKS IN ROSES.

THE history of the modern *Rose* is marked from time to time by the appearance of varieties which, constituting new breaks, reassert her supremacy in the garden. Varieties like *Gloire de Dijon* and *Maréchal Niel* will suggest themselves to all as among those which have influenced our best and latest yellow *Roses*, and Mrs. W. J. Grant is another instance of how much one variety can help the progress of the *Rose*. This fine *Rose*, like *Mme. A. Chatenay*, *Caroline Testout* and others, was the offspring of *V. Verdier*, and gave, in combination with *La France*, which was another break, many of our best autumnal bedding varieties. Neither do we forget *Soleil d'Or*, the hybrid from *Persian Yellow*, which has

introduced new features into our *Hybrid Teas*, giving us such varieties as *Lyon*, *A. R. Goodwin* and Mrs. *A. R. Waddell*, not to speak of those not yet offered, such as the superb *Mme. E. Herriot*, or the dainty *Willowmere*, or that much-improved *Rayon d'Or* which is to be called Mrs. *G. Beckwith*. The influence of the Austrian is already entering, too, into our climbers, and we find this in such sorts as *Louis Barbier* and *Entente Cordiale* (of *Guillot*).

But here the result has mainly been one of colour. With two classes of climbers now merging into one, the multiflora and *wichuraiana* hybrids, we have new effects in habit, foliage and size of bunches. All these improvements are largely derived from that complete break, *Crimson Rambler*, although the importance of *Rosa wichuraiana* must not be forgotten, and to the multifloras we also owe one of the most distinct additions to our gardens—the

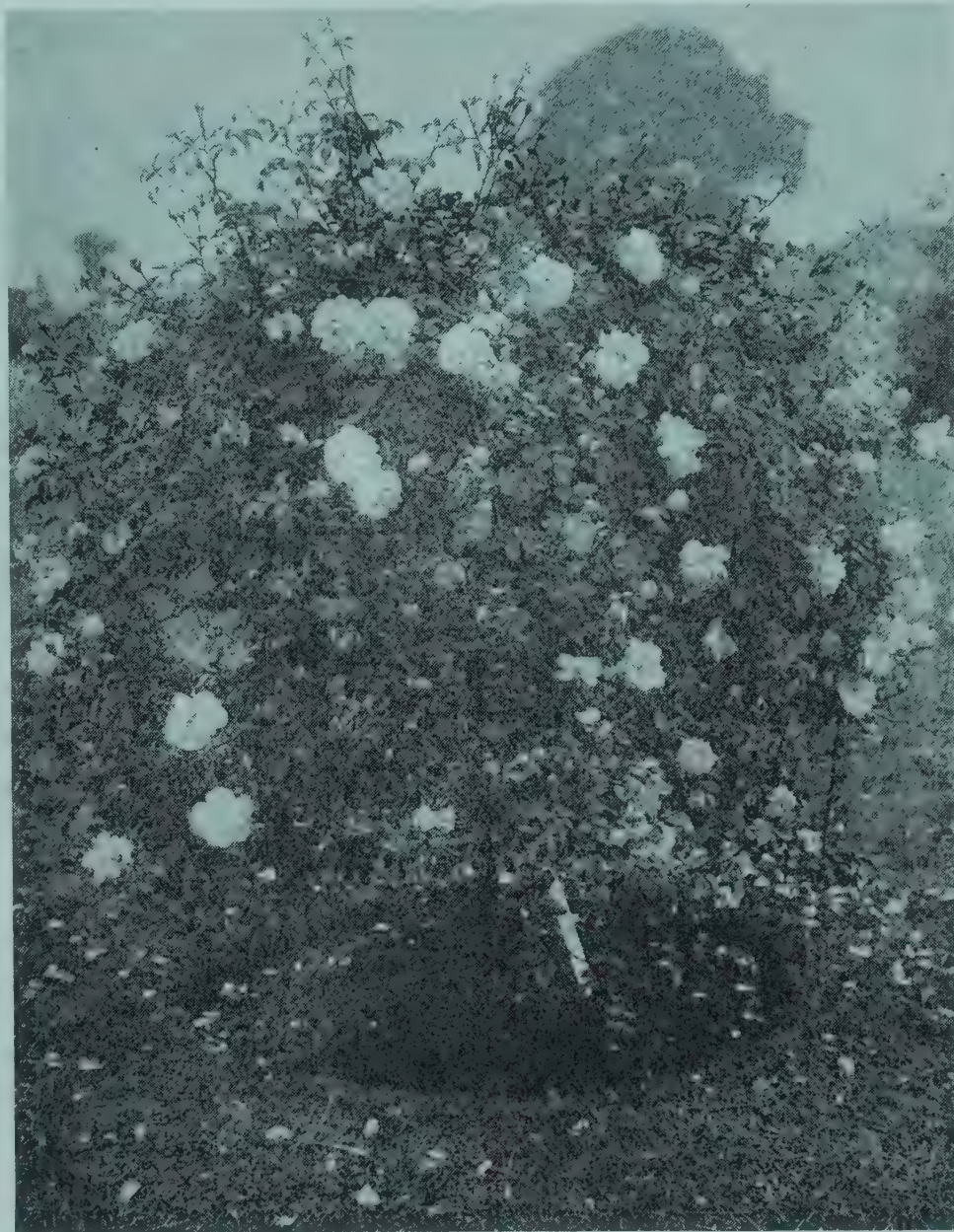
baby ramblers. Of these, the most striking are Mrs. Cutbush, Jessie and Orleans Rose. In Maman Turbat and Yvonne Rabier we have promise of a corresponding race of baby wichuraianas of much novelty and beauty. In these cases it will be seen how often a new race originates from some startling novelty which arrests the attention of hybridists. At least, this is so with the more modern breaks. In the olden days the raisers of new Roses must have been men of imagination and intuition in no slight degree, for they had no Mendel's law to guide them. I have by me some old portraits which, deficient as they are, afford much cause for thought. These men struck some potent notes, though they were perhaps before their time, for there are yet upon the shelves some of their unworked themes, which should be developed.

The Roses which make history are, after all, not many, and there are some still which are waiting their turn. As an illustration let me go back to a favourite theme of mine, the Musks. These and the Noisettes, for the two are one, have been for a long period in the shade, but their day is nearly come. It is not for nothing that the National Rose Society gave this year at least three awards for novelties of Musk origin, varieties perhaps not in themselves of superlative merit, but significant of many possibilities, since herein lies the promise of autumn climbers. The chief work in this class has been done within the past few years, and yet lying at hand was the material from early days. My attention was first called to this class by some German novelties, Leonie Lamesch and others, which showed the qualities of the Noisette breed. The credit for these must be attributed to Mr. P. Lambert of Trier, one of the most original-minded rosarians we have. Rose-growers will recollect his perpetual climber Trier and his other Musk hybrids, half-climbers like Adrian Riverschon and Dr. Mittweg, and his dwarfs of a similar strain, Gustave Meyer, Meise and others. Mr. Pemberton has proved a worthy rival to Mr. Lambert, and with his Danae has certainly introduced into the climbing Musks what was largely lacking—colour; so the Germans will not have it all their own way. We have yet to eliminate tenderness from this race and to improve their floriferousness, although they flower well in the autumn already.

Another break which we should not fail to remark is Grüss an Teplitz, originating, I believe, partly from the Chinas, but also with the blood of Gloire des Rosomanes, ancestor of our crimson Hybrid Perpetuals. This is a most original break, and one proving how necessary it is to sometimes hark back to earlier types for novelty. Grüss an Teplitz has already justified its existence in giving us Hugh Dickson, the best red autumnal.

Much of the above reads like ancient history, but one feels that in these earlier developments we shall find guidance for the future.

Now that the hybrid bedding Roses are, as was the case with the Hybrid Perpetuals of an earlier period, reaching probably their highest point, it is needful to look for new points and features. Already the H.T.s and H.P.s are being combined, as in Frau Karl Druschki. Let us briefly see what we have yet to gain. Such qualities as texture of bloom, of petal, mildew proofness, hardiness and vigour, in combination with fragrance, leave a wide field to be yet covered. The large-flowered climbers have not yet reached the excellence of such few kinds as Mme. A. Carrière, nor is there yet a really first-rate red large-flowered kind. The evergreen foliage of the wichuraianas has yet to be distributed. Even the species might be searched for novelty and their fruits improved.



A WEeping STANDARD OF ROSE ELISE ROBICHON IN THE ROYAL HORTICULTURAL SOCIETY'S GARDENS AT WISLEY.

There is a new Hybrid Tea, Mrs. E. Powell, with glorious rosy red flowers. The wood is purple, the foliage almost black, no signs of mildew, hardy and vigorous, which illustrates how each additional quality enhances the value of the whole. Such qualities are to seek, for we must add them to even our best Roses. A Lyon Rose or a Rayon d'Or which did not drop its leaves would be a distinct advance. There are enough new wild kinds from Asia alone to afford work for a whole generation. To work with species is long and tedious, yet to secure even only one kind of such supreme loveliness as, say, sinica Anemone should prove a sufficient reward. GEORGE LAING PAUL.

ROSE ELISE ROBICHON AS A WEeping STANDARD.

WEeping standard Roses are becoming more and more popular in each succeeding year, and deservedly so, for it is beyond doubt one of the most graceful forms in which Roses may be grown. The specimen plant shown in the accompanying illustration is one of many as seen growing in the Royal Horticultural Society's Gardens at Wisley. In these gardens weeping standards are a great success, and constitute a most pleasing feature. Among the best of the varieties we noted in these gardens last June were François Guillot, Alexandre Pirault and Joseph Billard. The trees had all been grafted about four feet from the ground, and throughout June were literally clothed with bloom down to the soil-level.

COLOURED PLATE.

PLATE 1456.

ROSE DUCHESS OF WELLINGTON.

AMONG Roses of recent introduction, the variety shown in the accompanying coloured plate is destined to hold a prominent position. It is one of the many good Roses that the famous Irish firm, Messrs. Alex. Dickson and Sons, have given us, and was first put into commerce in 1909. It is pre-eminently a garden Rose, combining good habit with vigorous growth and freedom of flowering, and is not addicted to mildew so much as many other bedding Roses. In addition to flowering freely during the summer, it is particularly free in the autumn, when its rich colour is, in many instances, seen to even better advantage than earlier in the year. This colour is almost, if not quite, unique among Roses, and has endeared the variety to all who have seen it in good condition. Apart from its colour it has a delightful fragrance, a feature that is, alas! too often absent in present-day Roses. It is now possible to have a Rose garden of all yellow or shades of yellow Roses, should one so desire, now that we have, in addition to Duchess of Wellington, the brilliant

Rayon d'Or, James Coey, Arthur R. Goodwin, Sunburst, Lady Hillingdon, with the older Gustave Regis, Le Progrès and Mme. Ravary. We mention these to show to what extent the list of Roses with yellow-hued flowers has been enriched during recent years. But good as most of these are, they can only be regarded as the forerunners of a race of yellow Roses that will do much to revolutionise the cultivation of the Queen of Flowers, not only for the embellishment of our gardens, but for market purposes. The flowers from which the accompanying coloured plate was prepared were kindly supplied by Messrs. H. Merryweather and Sons, The Nurseries, Southwell, Notts.

THE BEST ROSES FOR TABLE DECORATION.

I AM sure everyone will agree with me that, lovely as all flowers are for dinner-table decorations, Roses are really the favourites; one never tires of them. For one reason, there are so many varieties, and all varying in their form, size and beauty. Then their scent is so delicious that, however hot a room may become, no one will be overcome by their perfume, as is the case with so many other flowers. It is very difficult to say which are the best Roses for decoration, as some prefer large Roses and others single ones. Unfortunately, so many of the single Roses close up at night, Irish Elegance being an exception. To my mind nothing looks more exquisite than a dinner-table decorated with Irish Elegance, with a low silver bowl for the centre-piece and silver vases round, the lovely long-pointed, orange red buds and the fully open salmon-tinted flowers being brought out to their fullest perfection by the white table-cloth and the light of the candles. Mme. Abel Chatenay is a general favourite and always looks lovely; it is also such a graceful Rose that even when full blown it never looks heavy.

I think a great deal depends on the size and shape of a table what flowers should be used. I remember decorating a very long table with large blooms of Caroline Testout and long trails of Rose foliage from one end to the other; it sounds somewhat heavy, but the effect on the large table was most pleasing. Melanie Soupert is a lovely Rose if one can get it just in the bud, but it opens very quickly, and when full blown is not very pretty. I think a table of Richmond, arranged in white china vases with pale green foliage and long feathery trails of Asparagus Fern, is very effective. A lovely Rose for decoration is Joseph Hill, the stems being so very stiff and long; it also lasts a long time and looks well to the end. Sulphurea is a pretty little Rose with its own dark foliage, especially in the autumn when Roses are becoming scarce. Sinica Anemone, a large silvery pink single Rose, and one of the first to come out, is very striking. Dawn makes a very pretty table done in rather low bowls and with some other foliage, its own not being adaptable for decorative purposes. I am very fond of all the wichuraiana Roses.

Alberic Barbier, one of the earliest, mixed with Carmine Pillar, always looks well. François Juranville is also delightful with its lovely shell pink flowers, shining leaves and red stalks. Dorothy Perkins, everyone's favourite; Hiawatha, if you can get it when the flowers have just opened; and Lady Godiva, which is so easy to arrange with its pretty little clustered sprays of the palest pink flowers and bright green leaves, are all beautiful.

A dinner-table of all very pale-tinted Roses is charming if they blend well together, such as White Maman Cochet, Viscountess Folkestone, Safrano and Gustave Regis. Some of the new Roses seem especially adapted for tables, being small

and easy to arrange—Sunburst, which is lovely and lasts well; Mrs. Fred Straker, Lady Pirrie, Lyon, Mrs. Alfred Tate and Lady Hillingdon. Though the latter is an exquisite colour, the buds and the flowers are so very set and so much alike that it makes rather a stiff and somewhat disappointing table. I am not very fond of pure white Roses for a table; against the white cloth they look too cold and colourless, and have a very artificial look unless coloured candle-shades are used. Then the result is very good.

It is always very difficult to get just the right vases for the right flowers; tall, slender vases often look bare and unfinished, even when surrounded with sprays of foliage; yet if you have many low round vases, the result is often too squat and solid-looking. The centre-piece should never be too high, as it hides the view across the table. If one is the happy possessor of old silver decanter stands, what can be more lovely and effective

JUDGING NEW ROSES.

It is generally agreed that the present system adopted by the National Rose Society in awarding its medals leaves much to be desired, but the problem is what can be substituted in its place. I am firmly convinced a trial ground is needed, and we shall not arrive at a just estimate of the value of a novelty until such a trial ground is an accomplished fact.

It has been suggested that a jury should be elected to visit the raisers' gardens and inspect the novelties; but seeing that such gardens are widely apart, this scheme does not commend itself to the practical man, and yet some arrangement of this sort is needed, and for this reason: If one can see a large quarter of any new Rose growing, one is able to form a just opinion of its merits better



AN EFFECTIVE ARRANGEMENT OF ROSE DOROTHY PERKINS AND ITS WHITE VARIETY ON THE ROSE PERGOLA AT KEW.

for the outside vases; also the pretty cut-glass jelly-glasses that our grandmothers prided themselves upon, and who would have deemed it desecration to have used them for flowers. Unfortunately, we do not all possess these old treasures.

J. B. LANGTON.

ROSE MRS. FRED STRAKER.

THIS delightful Hybrid Tea Rose is destined to become very popular, perhaps even to rival Mme. Abel Chatenay. The long and elegant buds finish beautifully, making a lovely coat-flower, and it is ideal for sprays. As a garden Rose it will be one of our very best, the growth being erect and vigorous, and its foliage, being bronzy green, contrasts well with its flowers. Moreover, one is not troubled by mildew, as this variety seems to be quite immune from this pest.

than from a dozen or two dozen selected specimens. British Queen was submitted to the judges at Belfast and passed over, whereas some of the judges who saw the fine array of it at Portadown would have given it a gold medal without hesitation, an honour that it has since gained. My opinion is that a sub-committee could well be appointed by the National Rose Society to visit the various raisers and make notes, which would be of great value when the Roses were brought before the judges at either of the society's shows. The sub-committee should be instructed to watch the behaviour of each Rose as a cut-back, for I am persuaded that many gold medals have been wrongly awarded to Roses that are good as maidens only. It is easy enough to get a fine big bloom from a maiden plant; but how is it going to behave when the amateur purchases it?

One of the loveliest Roses with me this year has been Mrs. Arthur Munt. Now I know this variety failed to obtain the gold medal, but it would most certainly have succeeded had the jury seen the Rose growing. Again, I venture to say the gold medal would not have been awarded to several varieties that did gain it, for a like reason.

I have an alternative suggestion to make, and that is that some gentleman should be asked to allow a trial of novelties to be made in his garden, say, for two years. Supposing our honoured secretary, Mr. Edward Mawley, would undertake such a trial, Berkhamsted would be easily reached by a committee of experts appointed by the society, and awards made on the spot, or, finally, when the Roses were put up at the show. Of course, it would be better still if the National Rose Society possessed its own trial ground, where all members could have access. Such a Rose garden under the charge of a thoroughly reliable and capable superintendent would be of untold value to the society, and would be, I feel sure, well patronised by the Rose-loving public, who would find in it an extra inducement to join the society. The augmented number of members would soon repay the society for the upkeep of the garden. We want such a garden not only for novelties, but also where one could see some of the good old Roses for comparison. Supposing a certain variety was thought to be too much alike another, this matter could be settled right away by comparison. This is a very fitting time to ventilate this subject, and I feel sure no one wishes this country to be rivalled by France and America, for both these nations possess trial gardens for Roses. W. EASLEA.

THE BEST AUTUMN ROSES.

EVEN to the present day June is often styled the month of Roses. It is true that we get a fairly good show of bloom during that month in favourable seasons, and used to have a greater proportion among the older varieties, but I venture to say we have quite as much right to claim September as a Rose month since the advent of the numerous and charming varieties of Hybrid Teas. There are a great number of these which appear at their best during autumn, and this is all the more noticeable because so many of our so-called summer bloomers are quite done with, and the majority of the Hybrid Perpetuals give few autumnal blooms, and then only one here and there. I must, however, make an exception in favour of Frau Karl Druschki, Victor Hugo, Ulrich Brunner and Mrs. R. G. Sharman Crawford from this section.

Such Teas and Hybrid Teas as G. Nabonnand, Peace, Betty, Mme. Ravary, Killarney, Theresa Bevan, Edu Meyer, Lady Ashtown, Lady Battersea, General Macarthur, Grüss an Teplitz and Mme. Antoine Mari—only to name a dozen as they

occur during writing—are among the freest and choicest of all Roses during the autumnal days. The cooler weather conditions would seem to suit this class of Rose far better than the brighter days of midsummer. Certainly they open in a firmer and most lasting way, while the autumn foliage of many is also much deeper in colour than when somewhat crippled by bright sunshine, which has a tendency to dry up these succulent and bronzy purple shaded growths, many of which are well worth growing in the autumn for the beauty of their foliage alone. Irish Elegance, G. Nabonnand, Mme. Ravary, Perle des Jardins, Joseph Hill and Grüss an Teplitz are half-a-dozen with



NEW ROSE BRITISH QUEEN, THAT GAINED A GOLD MEDAL AT THE NATIONAL ROSE SOCIETY'S AUTUMN SHOW.

particularly pleasing foliage, and not so prone to mildew as many.

A few of our best autumnals produce large, spreading trusses that are carried boldly, while each flower is upon so long a stem of its own as to allow of useful cutting without destroying a number of unopened buds upon the truss. La Tosca, Peace, Mme. Antoine Mari, Peggy, Molly Sharman Crawford, Corallina, Mme. Abel Chatenay, Mrs. A. R. Waddell, Edu Meyer, Lady Battersea, General Macarthur and Betty are twelve good examples of this.

To me it appears that the autumn Roses have a more pronounced perfume than those opening

so hastily in the summer, perhaps because the centres of the flowers, where the perfume seems to emanate from, has had a better opportunity to develop.

Uckfield.

A. P.

A FEW GOOD ROSES FOR MASSING IN BEDS.

DURING the past few years there has been a distinct advance—chiefly among the Hybrid Teas—of Roses well suited to this form of decoration. In my opinion, formed chiefly from our success with it at Gunnersbury House Gardens, Joseph Hill, the subject of the illustration on page 519 is one of the best. It is good at all seasons, both early and late. Just recently we have had some very fine flowers, and that, too, in large trusses without disbudding. (This form of culture is not countenanced here.) It is invariably good in colour—a salmon pink, shaded with yellow and ochre, outside of petal, coppery pink. In growth it is very vigorous, yet very sturdy; hence it stands the winds well and its hardihood is beyond any question. We find hard pruning to suit it admirably. I am somewhat surprised to think it is not better known. At the recent autumn Rose show of the National Rose Society it was rarely to be seen in any stand, yet it is one of the most attractive of all. Its rich bronzy, healthy foliage lends itself to this feature. Mildew gives it but little trouble. Of other Roses that thrive well here, Prince de Bulgarie is one of the best. It is somewhat in the way of the preceding, but with more variation in its colouring. Souvenir de President Carnot is excellent; nothing better in its colour. Both Richmond and Liberty are fine as crimsons. Sometimes one is best and sometimes the other. Antoine Rivoire has been perfectly lovely throughout this season; better than last year when so hot. Lyon Rose has also been better. I wish it did not shed its leaves so prematurely. Mme. Abel Chatenay has been most troublesome with mildew, yet it is almost indispensable in its colour. Kaiserin Augusta Victoria is not beaten yet in its purity of colour and freedom of flowering. Corallina is excellent, and quite immune from mildew with

us. La Tosca is a fine Rose, most robust and very free, with scarcely a trace of mildew upon its lustrous foliage. Souvenir de Pierre Notting is excellent as a pale yellow, better in dry weather than in wet. Last year it was fine. This makes a dozen varieties, all of which we find to do well with hard pruning. I should have added that ever popular Caroline Testout. Grüss an Teplitz, as a deep crimson scarlet, is fine, but with us it mildews badly, and the same applies to Frau Karl Druschki. The former we prune moderately and the latter scarcely at all, merely thinning out the weakly wood.

JAMES HUDSON, V.M.H.

Gunnersbury House Gardens, Acton.

NOTES ON NEWER ROSES.

(Continued from page 499.)

ALL Roses fall naturally into two sections (except from the botanist's point of view) and I will call them decorative and exhibition. These notes will be divided in the same way, with a further subdivision as regards the former into dwarfs and climbers, and as regards the latter into the still useful but almost worn-out sub-divisions of Hybrid Perpetuals, Hybrid Teas and Teas. As a new Rose is more important to the exhibitor, I will deal with exhibition Roses first, and endeavour to condense my notes thereon, so that they will all appear in the next four issues, and so perhaps may prove of service before all the blanks are filled up and the discards replaced from the nurseries—for it should be an annual practice for the exhibitor to run through his Roses, especially where his space is limited, and weed out such varieties as are no longer serviceable in the strongest sense of the word. By that I mean plants that do not give a good percentage of exhibition flowers per plant. Roses differ enormously in this respect, and I think one might almost say that, the older the variety, the greater the number of plants that will have to be grown to make sure of finding a good flower when you want one.

The discriminating exhibitor, with his carefully-thought-out list of, say, 200 varieties, scores heavily over his less careful rival, who may grow his Roses equally as well, but who is growing a number of plants that are good old names, but that seldom give him a flower that he can stage with advantage. Perhaps the National Rose Society might see its way clear to draw up an "ideal" list for the 200 plants man, giving not only the varieties, but the number of each that should be grown, having due regard to locality and other matters that would necessarily have to be considered.

EXHIBITION ROSES ONLY, 1909-12.

Hybrid Perpetuals.—These are very few and far between. Doubtless a few more might be discovered labelled as Hybrid Teas, but there are apparently only two that I need refer to under the head of Hybrid Perpetuals.

George Arends (Hinner, 1910).—A seedling with a lot of Frau Karl Druschki blood. It is rose pink in colour, of good habit of growth, but is not so good as Elizabeth, and is similar. It has more scent than that variety, but I do not think we want them both, and Elizabeth is more reliable.

Gloire de Chedane Guinoisseau (Guinoisseau, 1909).—This is a good Rose, and has been very largely exhibited this year. A good-coloured crimson, it has claims to be considered one of the best of its colour, and all exhibitors should grow it. It has the further advantage of having been three years in commerce, and so has reached normal prices—1s. to 1s. 6d. each. It has frequently this year been found winning the medal for the best Hybrid Perpetual in the show, and when a Rose does that pretty often, nothing more need be said. It lasts well when cut, and does not grow smaller in the exhibition box, as some of the reds will. Its percentage per plant is fairly high—considerably better than either Edward Mawley or Leslie Holland in this respect. Altogether I can recommend this Rose as worthy of a trial.

This is a meagre list of Hybrid Perpetuals for three years, but I can call to mind no others.

Southampton.

HERBERT E. MOLYNEUX.

(To be continued.)

THE GREENHOUSE.

WORK AMONG THE CHRYSANTHEMUMS.

DURING the whole of this [month the plants will be developing their buds, and by the end of it cultivators will be able to judge as to the quality of the blooms of the various varieties that are being grown for exhibition and for forming conservatory and greenhouse groups. In order to have late, medium and early varieties at their best on a given date in November, it will be necessary to do a considerable amount of shifting of plants to and fro from one house to another, and even in different positions in the same house. There are also the questions of artificial heat, shading and feeding. All combine to aid in the production of perfect blooms. Many cultivators like to arrange their plants in groups directly they are

seen numerous white surface roots killed in a few hours owing to the too frequent application of nitrate of soda and given in too strong doses. If a teaspoonful of nitrate of soda be dissolved in a gallon of water, and one dose of this strength only be given to plants that are backward during the whole of October, it will be sufficient. The concentrated manures sold by horticultural sundriesmen should never be given stronger nor more frequently than is recommended by the vendors. I know that many inexperienced cultivators overdose their plants, thinking that they can develop a monster bloom from a tiny bud. Result—crippled root action and a badly-developed bloom. I have seen buds that never properly developed, owing to the plants bearing them having been fed too much. Clear soot-water made from old soot may be given occasionally.

Fire-heat and Ventilation.—A nice buoyant atmosphere should be maintained in the house. The colours are clearer and richer when the blooms open in a rather cool temperature and dry atmo-



AUTUMN BLOOMS OF ROSE JOSEPH HILL IN THE GARDENS AT GUNNERSBURY HOUSE, ACTON.

taken to the houses. This should be avoided, if possible, as the grouping together of many plants for a period of five or six weeks results in the loss of bottom leaves wholesale. In all cases it cannot be avoided, on account of lack of room, but where there is ample space it is much the best to put the plants in twos and threes in different parts; then the air can circulate freely through them, and their basal leaves are retained in a fresh condition until the blooms are three parts developed at least. The groups may be formed when the blooms are at this stage, and owing to the freshness of the leaves, the effect will be more pleasing.

Feeding.—This should be continued until the flowers are a little more than half developed. There is much art in the feeding of a plant. Some cultivators do more harm than good in the use of artificial manures. Nitrate of soda, sulphate of ammonia and similar stimulants which are of a strong nature must be used with great care, else many valuable roots will be killed. I have

sphere. A little night ventilation is essential, and more in the daytime when the weather is fine. In foggy weather have rather more heat in the pipes, and cover the slightly-open ventilators with coarse scrim or tiffany. Shade any forward blooms by placing sheets of paper over them at a distance of 18 inches inside the house. By applying shading to the outside, other varieties which require all the light and sunshine possible may be unduly shaded. Such varieties as Mrs. A. T. Miller, Master James, Rose Ellis, Rose Pockett, Mrs. L. Thorn, Evangeline, Kara Dow and Reginald Vallis develop their blooms quickly. Mrs. Gilbert Drabble, Mr. Thornton, Master David, Countess of Granard, Marie Loomes, Francis Jolliffe, Edith Smith and other late-flowering sorts develop their blooms more slowly. All varieties of the incurved section should be fully developed, else their depth is much diminished, but they must not be forced open. The single-flowered section take the shortest time of any.

AVON.

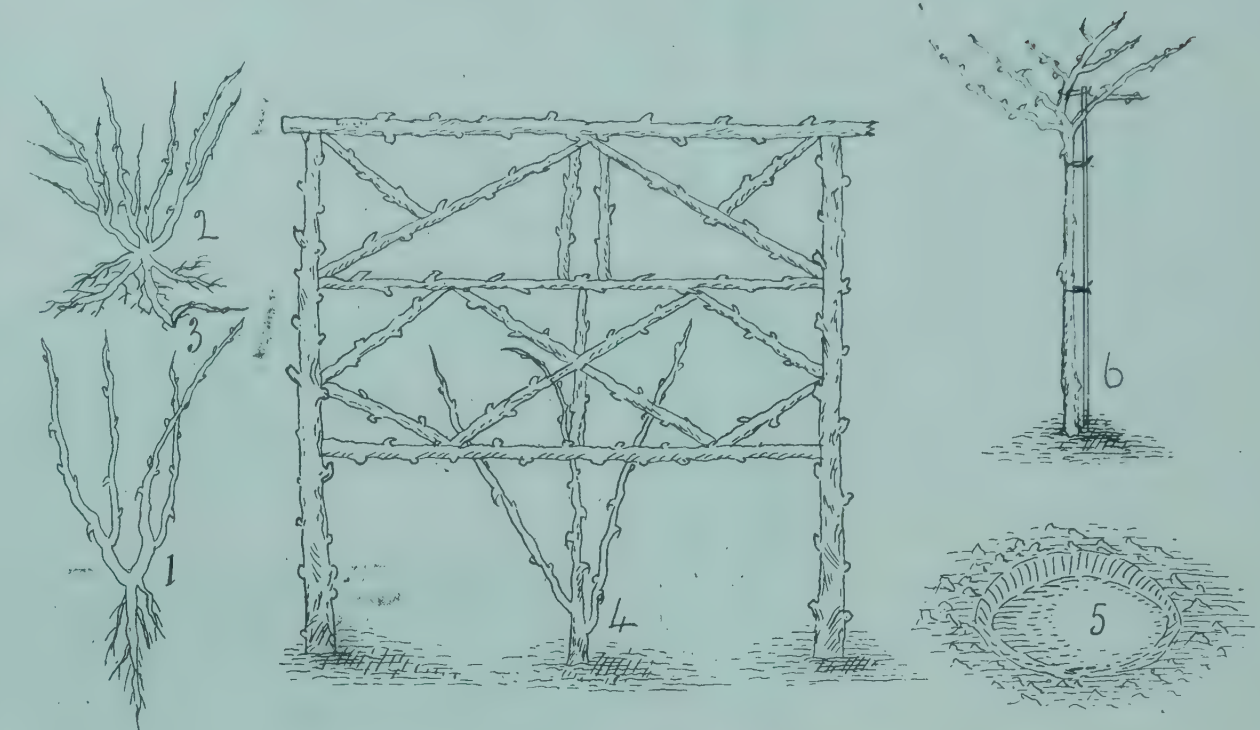
GARDENING FOR BEGINNERS.

HOW TO PLANT ROSES.

THE year 1912 will be remembered for the great wealth of Roses produced, and hundreds of lovers of these charming flowers will wish to grow plants in their own gardens. The inexperienced cultivator will look for instructions as to the best way to prepare the soil and plant the trees. The following hints will prove useful to those who wish to plant trees of the various sections in open beds and near walls and fences for the furnishing of the garden generally.

How to Prepare the Soil.—A fairly heavy loam is regarded as an ideal one in which to grow Roses, and it is, undoubtedly, a splendid rooting medium. Such soil, however, is not found in all gardens; but, notwithstanding this initial drawback, the enthusiast will not hesitate to plant Roses in a rather light soil or in a gravelly or poor one. Where rich loam obtains, the cultivator will not need to do more than deeply trench it, leaving the subsoil at the bottom, as manure can be applied in the form of surface mulches afterwards. Light, sandy or gravelly soils must also be deeply trenched, and in each case the subsoil should be broken up with a garden fork and left below.

When Roses should be Planted.—The season for planting extends from October to March, both months included. The latter part of October and the whole of November is an ideal time for planting to be done if the soil is in good condition and the weather is open and dry. Certainly it is better to plant before Christmas, if possible; than afterwards, though the work may, and should, be done after Christmas if it is inconvenient to do it before. When the Roses are received from the nursery, they must be unpacked at once and, if the roots are dry, placed in a cistern or tub of water. No time must be lost in getting the trees planted, as exposure of the roots to the drying wind is harmful. If frost prevails, the bundles should be placed in a very cool shed or cellar, and be left there until a thaw comes. In this case also soak



PLANTING BUSH, CLIMBING AND STANDARD ROSES.

the roots for a few hours before planting is done. With regard to the actual planting of the Roses, the illustrations will greatly assist the inexperienced to understand how the work must be done.

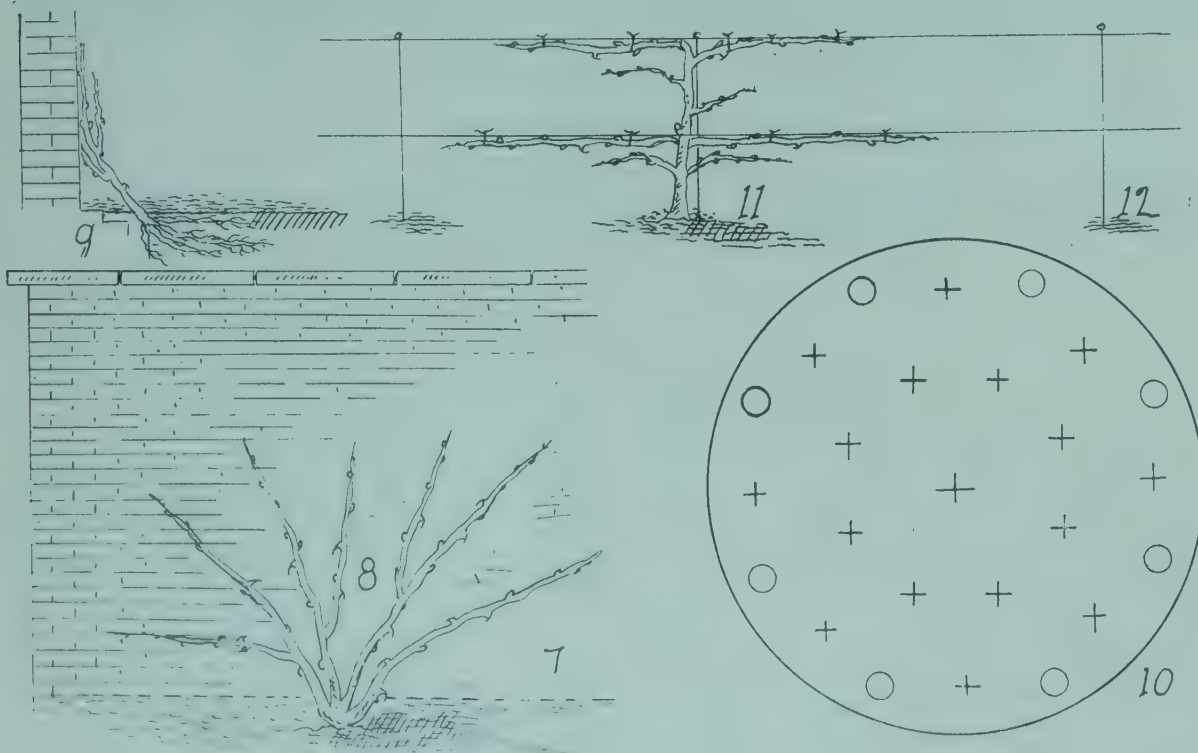
The Illustrations.—Many plants are purchased similar to the one shown at No. 1. Very strong-growing varieties often possess roots of this kind, especially those belonging to the Hybrid Perpetual section. No. 2 shows a tree suitable for a wall or trellis. If any roots are damaged as shown at No. 3, such roots must be cut back with a sharp knife before planting. No. 4 shows how to plant a Rose which is intended for the covering of a trellis, screen or pergola. The tree should be planted between the posts for two reasons, namely, to avoid removing soil and loosening the posts, and

to avoid loss of trees through fungus, which often grows around posts. Healthy trees soon grow and cover all posts with branches. No. 5 shows how to make the holes for the plants. They must be several inches wider every way than the spread of the roots, and not too deep. No. 6 shows a standard Rose planted and staked, and it may be noted that the stake supports the head as well as the stem. No. 7 shows the right way to plant a Rose near a wall, with the centre, No. 8, well open. The centre of a wall tree always closes up first. The roots must be planted about ten inches or one foot away from a wall, so as to avoid the wall "footings" as shown at No. 9. Avoid overcrowding the plants in beds. Mixed varieties of Hybrid Perpetuals should be planted 18 inches apart. When one variety occupies a bed and is a strong-growing one, 2 feet must be allowed. The circles and crosses denote the position of the plants in a round bed. No. 11 shows how to plant Roses to cover low or high trellises. No. 12 shows the iron rods for supporting wires to which the branches are trained. Plant firmly and slightly deeper than the bushes have been growing in the nursery.

G. G.

A USEFUL GREENHOUSE PLANT.

CRASSULA FALCATA, a South African succulent, is more generally known under the name of *Rochea falcata*, and as such it may be often met with in old-fashioned gardens. Introduced over a century ago, its merits are, in the present-day race for novelties, frequently over-looked, yet when in flower it is a really pretty plant. It is a plant of sturdy growth, the stout, upright stem being furnished with thick, fleshy, sickle-shaped leaves of a rather glaucous tone of colour. The flowers are small, bright red in tint, and disposed in closely-packed, flattened heads, the golden anthers forming a notable feature of the inflorescence. It is quite distinct from the old *Crassula*, or *Kalanthes coccinea*, which, by the way, is now included in the genus *Rochea*.



PLANTING ROSES AGAINST WALLS AND IN BEDS.

THE FLOWER GARDEN.

SWEET PEA NOTES.

Autumn Catalogues.—As was promised in an earlier issue of *THE GARDEN*, notes will be given in this and succeeding numbers of the varieties which the leading specialists in Sweet Peas are offering. It has already been hinted that stocks of all the finest novelties, and also of many of the leading modern sorts, will be decidedly on the short side, and the man who orders early will have a far better chance of getting precisely what he requires or desires than the one who procrastinates and cannot make up his mind until the season is on the wane. "Order early" is an excellent motto. The best firms are all somewhat shy of giving definite information, and the promises are all qualified in some manner or another.

A Birmingham List.—Mr. Robert Sydenham openly avows the fact that he is not a raiser of novelties in Sweet Peas or anything else in the gardening way, but he has a wonderful capacity for finding the "swans" raised by others, and will always purchase stocks provided they are sufficiently bulky to be worthy of his consideration. Among his best, though all are not necessarily offered this season for the first time, is Lilian, a soft waved pink, flushed with buff, which has the happy habit of carrying four flowers on a stem. Visitors to the Royal International and other important shows will have made a note of it, because it was splendidly staged. Princess Mary is a waved medium blue very much in the way of Flora Norton Spencer, but a marked advance on that charming variety. It generally gives fours. The colour of Zarina is popular with practically everyone, and the Spencer form that Mr. Sydenham will offer is certain to have a warm welcome. It has been suggested on more than one occasion that Lord Nelson should be relegated to the region of superseded varieties, but there have always been those who maintained that it was fully entitled to its present position because there was no other blue comparable to it. Now that Mr. Sydenham has a true Spencer form, the old one will have to go to the wall, and the new-comer will spring instantly into the highest favour among growers for home decoration as well as for exhibition. It is described as standing the sun better than any other Sweet Pea of its colour, and as yielding four flowers on practically every stem under good management. Cerise Spencer is a hackneyed sort of description; it conveys an accurate idea of its colour, but not of the fact that it is nearly sun-proof, which is, after all, one of the most important of all recommendations. The varieties that emanated from this source last season have proved to be thoroughly worthy of culture, and they should be borne in mind in compiling lists for next year. The names and colours are: Edith Taylor, salmon rose; Barbara, salmon orange; Lady Evelyn Eyre, pink, suffused salmon, large; Emperor, scarlet, exceptionally fine; and Thomas Stevenson, which reigns supreme in its particular shade. This is not, as will be acknowledged, a formidable set, but it is a good one.

An Ingatestone List.—For some years Mr. E. H. Christy, The Beacons, Ingatestone, ranked with the leading amateur enthusiasts in Sweet Pea culture, and he has now blossomed forth as a grower and seller of seeds. He is one of the staunchest advocates of reduction in the number of varieties, but his list demonstrates the fact

that he does not see his way clear to fewer than five dozen. The selection is beyond question an admirable one, comprising as it does all the finest varieties in cultivation. Mr. Christy has not offered any novelties of his own raising, but no doubt he will do so before many years have passed. Up to the present he chooses the best of those introduced by others and grows them on his own land in Essex, where, we are all agreed, some of the finest Sweet Pea seeds that one could desire to have or expect to see have long been produced. In this list the number of seeds in a packet is stated "subject to crop," and I for one shall be much surprised if Mr. Christy is able to come within speaking distance of the quality in the case of many varieties which he is offering.

HORACE J. WRIGHT.

A BEAUTIFUL BULBOUS PLANT.

(HABRANTHUS PRATENSIS.)

THIS beautiful bulbous plant was introduced from Chili in 1840, and is considered by many to be of doubtful hardiness, though here it stands without any protection whatever. The treatment we give it is as follows: The bulbs are planted in September in borders deeply dug, with a liberal quantity of leaf-mould incorporated in the same manner as for Daffodil culture. They could no doubt be planted with almost as good results well into October. They are planted in rows 1 foot apart, 9 inches from bulb to bulb and 4 inches deep. After planting, the borders are given a coating of leaf-soil 2 inches thick. The only attention the plants then receive is an occasional stirring of the surface and the keeping down of weeds.

The soil here is sandy loam, and the gardens are situated six miles from the coast of Norfolk. Our largest border of Habranthus this year is 12 feet wide and has a south-east aspect. At the back is a wall 5 feet high, planted with Pear trees. The border starts 4 feet from the base of the wall. The bulbs are allowed to remain two years, when they are lifted and divided as soon as the foliage has ripened, which is about the end of June or early July, the small bulbs being planted by themselves to grow on to flowering size. The plants were very strong this year, and threw up flower-stems 18 inches to 2 feet high, with from five to nine flowers on each, seven being quite common. Last spring, before flowering, the plants withstood frosts up to 22°.

The original bulbs in these gardens were given to my grandfather by the late Rev. Nelson of Aldborough forty years ago, and his advice was to plant them in a warm position 10 inches to 12 inches apart and leave them undisturbed. There are several other gardens in this district where Habranthus pratensis is flourishing, the bulbs being distributed from the same source. This autumn we are planting Habranthus in beds quite in the open, as last season we had some small bulbs planted to grow on in beds fully exposed, and they did as well as could be desired. It would seem that this beautiful subject is more hardy than is generally supposed. Perhaps these few notes may induce others to try this plant, which well repays any labour expended on it. I may add that last May we had over eight hundred spikes, which, with their vivid colouring, made a display not easily forgotten.

E. G. DAVISON.

Westwick Gardens, Norwich, Norfolk.

PREPARING NEW BEDS FOR ROSES.

IF one would have good Roses, he must grow them in his heart." The late Dean Hole was not far wrong when he made the above remark, and it is true that if one possesses a real love for the flower, he will see to it that good soil is prepared for the plants. I am afraid many amateurs are very often induced to go to unnecessary expense in purchasing special soil from a distance, when perhaps their own soil is good enough. If one possesses a light, sandy soil, then by all means add some loam and, if possible, pulverised clay, and also a liberal amount of good cow and pig manure. Roses are gross feeders and require plenty of nourishment, and nothing can be better for them than natural manure.

If the soil happens to be a heavy clay, this needs well breaking up and some burnt earth added. Perhaps the ideal soil is such as this. We do not know the value of burnt earth, especially to blend with clay soils, and a cartload or two of this is a good investment. In preparing new beds or borders for Roses, do not be induced to add all sorts of compounds, such as leaf-soil, and be very chary of adding the various remedies for the extermination of insect pests. My own opinion of these is that the remedy is often worse than the disease. If there are insect pests, lay the soil out thinly and allow the birds to pick it over; and they will do this most thoroughly.

All beds or borders should be trenched 2 feet deep, and if of a light nature, trench 3 feet and add plenty of good cow-manure to the lower soil. My plan is to open a trench 3 feet wide and any convenient length. Take out a spadeful in depth all along the trench and also its width. Wheel this away to the end of the trench. Now shovel out the loosened soil and also wheel it away. Fork up the next layer with a good deep fork; then spread over 3 inches or 4 inches of good manure and fork the ground over again. Add 6oz. of basic slag to every square yard. This is best put on at the same time as the manure. Now mark out the second trench and dig the top soil into trench No. 1. Shovel out the loose soil, and trench No. 1 is finished. If any soil is to be added, this can be done as the work of turning over is carried out. Should there be Roses in the borders that one does not wish disturbed, it is very easy to avoid these as the trenching proceeds; but it is far better to dig as much of the soil as possible, rather than adopt the very bad plan of just opening holes wherever a Rose is to be planted.

For ramblers and standard Roses that are to be isolated, also for weeping Roses, good large holes should be dug out fully 3 feet deep, and as much in width and length. One important detail, viz., drainage, must not be overlooked. Roses abhor a water-logged soil. If the drainage is not free, artificial means should be adopted to make it so, and a few inches of large stones, clinkers or brickbats, placed 3 feet deep, will generally effect our purpose, providing a fall is made for the superfluous water.

Perhaps the greatest enemy of the villa gardener is the unskilled jobbing man, who will not prepare the soil properly for the Roses he has to plant. I would strongly urge upon all amateurs to see that the soil is well broken up to a depth of 30 inches at least; then one may expect good results, providing sound well-rooted plants are set out.

DANECROFT.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Crown Imperials (*Fritillaria imperialis*) are fine subjects for the borders and give their stately drooping flowers early. A good rich soil is suited to their requirements, and before planting, which may be carried out now at any time, see that the position they are to occupy is liberally treated with decayed farmyard manure. There is a variegated variety which is also very effective.

Leucojum aestivum, or the Summer Snowflake, may be planted in the borders or elsewhere, and will give a display of its Snowdrop-like, but larger, flowers during summer. Being perfectly hardy, it is no trouble. Plant about three inches below the surface.

Calceolaria alba.—This is an interesting and pretty plant for the borders and front of the shrubberies, but, unfortunately, none too hardy. A few cuttings taken now and wintered in a cold frame will ensure the plant being perpetuated next year in the event of the old plants succumbing.

Senecio glastifolius.—This, too, is a grand subject for late summer and autumn blooming, and an exceptionally free grower, producing showy flowers of much value for vase and table decoration. In a mild winter the plants will pass through it unharmed, but either a little seed should be reserved or cuttings taken as advised for the above.

Cape Figwort (*Phygelius capensis*).—This plant has been very effective this season, flowering profusely. Cuttings will root readily, and, if not already taken, should be secured at once. In warm localities it forms quite a large bush, but is never absolutely safe from frosts. With us it only makes an annual growth, and with the protection of some cinder-ashes round the base we generally manage to keep it. It also makes a fine subject planted against a wall in a sheltered position.

The Rock Garden.

Protecting Plants from Rains.—There are several subjects which are liable to be lost if exposed throughout the winter months to continued rains, and therefore some device should be used so that a sheet of glass of sufficient size can be raised above the plant and held secure in a slightly slanting position. There are various methods. Some people prefer a wire support, or even four wooden sticks with wire to go over the glass will suffice; but the arrangement should be simple and one where the glass can be easily detached and the frame stored away when not needed.

Labelling.—This, when done, should always be as neat as possible, but in many gardens it does not receive the attention it deserves when one considers the educational value to be gained. Small metal labels, stamped with a set of small letters, are cheap and lasting, as well as neat, and should, wherever possible, be placed just in front of the plants. Now that many plants are losing their growth, care should be taken that they are not disturbed, and here again the value of a label becomes apparent.

Plants Under Glass.

Nerine Fothergillii.—This is a fine bulbous plant for autumn flowering in the greenhouse, and the cultural requirements are not very exacting. Nerines should not be disturbed oftener than is necessary, and unless the stock is wanted to be increased, leave them alone. While making their growth give plenty of water and manurial assistance, and when thoroughly hardened off expose during the summer months to full sun and keep dry. This treatment, generally speaking, applies to all such Cape bulbous plants.

Gloriosa superba.—This attractive stove climber will, in most cases, be completing its growth, and as soon as it exhibits signs of yellowness it should be taken down from the rafters and tied to one or two sticks, water being gradually withheld from the plant, finally turning it on its side in a warm house to rest during the winter months.

Paneratiums.—When these have flowered, the plants should again be returned to a warmer house, and if any attention as regards potting is required, this may be given. Water newly-potted plants very carefully. Use a mixture of good turfy loam,

peat and leaf-mould, with the addition of charcoal and sand, using clean, well-drained pots.

Fruits Under Glass.

The Early Vinery.—With Vines that are started into growth before the close of the old year, it is absolutely necessary that they, as with all others, should have a season of rest, and during their resting period they should be exposed to all the air and, as far as is possible, a dry atmosphere. Often-times these houses have to accommodate flowering plants, but avoid the introduction of any that are affected with mealy bug, if possible.

Tomatoes.—To successfully grow Tomatoes through the autumn and winter months requires extra care and attention, and unless one has the benefit of a pit or house with a little fire-heat, they are best left alone. As much light as possible is requisite for their well-being; therefore a house in a suitable site and thoroughly clean should be chosen for them. A circulation of air whenever possible, with just enough fire-heat to maintain a buoyant atmosphere, careful watering, together with keeping the floor and surroundings dry, will help towards having them in a healthy condition. Keep the growth trained near to the glass and give a little top-dressing occasionally. Just a sprinkling of fine soil, with some fertiliser mixed with it, will stimulate root action.

The Kitchen Garden.

Chicory.—This is easily forced, and is so valuable for salads that a little may be started into growth as soon as one cares for it. The old growth should be twisted off and five or six roots placed in a large pot, placing soil or old Mushroom-bed material among them. Give a thorough soaking of water, and keep dark either in the Mushroom-house or by means of an inverted pot.

Rhubarb.—As the foliage dies down on the beds it should be cleared away, also any weeds or other refuse, the ground afterwards lightly forked up, and a dressing of decayed manure applied. Where early-forced Rhubarb is in demand, a few roots should be lifted and allowed to lie on the ground for a few days, and then taken into the Mushroom-house and kept moist, or they may be placed under the stage in a warm house and covered in.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Gladiolus.—Corms of the many sections may be lifted at any time after this, preserving some soil about the roots and all the little bulbs which are useful to increase stock. Lay them meanwhile in a perfectly cool structure where they are safe from frost. The present year's seedlings and young plants generally should have a 3-inch or 4-inch layer of soil spread evenly over the beds as a protection from hard frost.

Tuberous Begonias.—By covering at night these are sometimes preserved till the last. This year, however, the early frost in September seriously crippled the plants, and, as a rule, they will now be quite ready to lift. I leave some soil attached to the tubers, dry them in a covered outhouse or vinery, and then store them in boxes till spring. If carefully lifted and the carpeting material is still looking well, the beds, after tidying up, will be presentable for a few weeks longer.

Propagating Hardy Flowers.—The latest batch of cuttings of Pansies and Snapdragons should be put in forthwith. Some growers take cuttings of Carnations of the Raby Castle and Countess of Fife types and plant them in cold frames, where they form roots before spring is much advanced. Where possible, it is preferable to root them in sand in a propagating-pit, boxing them off when ready and growing coolly, far superior plants being the result.

Phloxes.—These, with few exceptions, will now have finished flowering, and where they are massed by themselves they may now be lifted, divided and replanted. Young plants are, of course, much to be preferred, but by selecting the outer portions of the clumps, perfectly satisfactory results are obtained. I would like to replant Phloxes annually, but have to be content with only some special varieties. The Phlox is a surface

rooter, and even if the ground is trenched, the greater part of the manure they must be allowed should not be buried deeply. To get a mass of blooms, the plants should be not more than a foot apart.

The Bog Garden.

Saxifraga Andrewsii.—This pretty species flowers at this time, and is almost the only plant in bloom. It should be raised above the water-line to be moist but not wet.

Meconopsis.—The foliage of *M. integrifolia* is very handsome if the plant is grown in the same way, and those who have a stock in pots might try some planted thus, that is where the natural soil is too light and porous to suit them.

General Work.—Quite a number of plants will now be past, and the stems should be cleared off—Liliums, for instance—and the decaying foliage of Arrow-heads, Water Plantains, &c., taken away. Forget-me-nots which have overrun their positions should be cut back, and, to finish all, a thin layer of rotted manure and soil be evenly distributed all over the soil where exposed.

The Plant-Houses.

Perpetual-flowering Carnations.—As many cuttings as can be secured should now be taken and rooted in sand in the propagating-pit. January cuttings may be preferred in the South, but autumn-struck cuttings certainly produce the better plants in the North. The cuttings themselves are of better quality, and the young plants are sufficiently forward by the end of January to go on with the advancing light and heat. Plants full of flower and buds in beds outside may be lifted and potted for present decorative purposes.

Heaths.—These are usually purchased at this season, and are sometimes allowed to get so dry at the root as to last only a short time. Much depends on the kind of structure in which they are placed, but the soil should be always kept moist, else the fine roots die and the plant follows. Much the same treatment is desirable for Epacris, but the plants are less susceptible to harm from occasional soil dryness.

Euphorbia fulgens.—This gloriously-coloured old flower should now be well forward, and growth should not be so much striven for as consolidation, so that as long sprays as possible may be flowered. The plants need only a temperature of 50° to 60°, and must not be overwatered in the meantime. Once the flower-buds are formed, occasional slight applications of sulphate of ammonia will deepen the scarlet.

Maidenhair Ferns.—These need to be merely kept in a frost-proof house through the winter, the fronds, if no damp is permitted, standing much better than if kept in a warm structure, and the new growths are much stronger in spring. Small plants will need to be watered with care, else, if too dry at the root, the fronds will wither. Large plants, on the other hand, will stand for weeks without water at the root.

The Vegetable Garden.

Tomatoes for spring fruiting should be repotted to stand over the winter, using a rather light compost. The plants should not be placed in too much heat, else they will not fruit, and must be kept rather dry at the root.

Celery.—Rust has been rather bad in this locality, and the crop consequently shortened. Repeated dustings with flowers of sulphur hindered its extension here. Before late rains soil should be placed well up the stems of the latest batch, finishing off the trenches two or three weeks hence when the soil has become somewhat settled.

Peas.—The full pods should be regularly picked off and kept for use in a cool place. The reason for this is lest frost should destroy the crop, which, if treated as above, will usually afford pods for a fortnight or so after the plants are killed.

Artichokes.—Cut over the stems of Jerusalem Artichokes 6 inches or 9 inches from the ground. The roots in the meantime will be the easier to raise, and the stems after this are no use to the crop. Strongly-grown Globe Artichokes are still producing small heads, and, like Pea pods, must not be allowed to remain on the plants to be frosted. It is worth while to detach suckers from the old plants and lay them in among coal-cinders or sand to be planted out in spring.

R. P. BROTHERSTON.

Tynninghame, Prestonkirk, N.B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

TO SOW FERN SPORES ON A WALL (Avonbrook).—As your wall is new, it is probable that you would do better to defer the sowing until spring. We presume that there are moderately wide crevices between the stones or bricks. That being so, it would be a good plan to take away a little of the mortar and insert a small piece of fibrous peat and a few chips of soft stone or brick. On the surface sow the spores during moist weather, but take care that the places where the spores are sown are so arranged that a heavy storm will not wash them off. If you have plenty of spores, a few might be sown now, and the remainder stored in envelopes or bottles in a cool place until spring. Another way in which you might deal with the wall is to sow the spores in pots or pans made up of sterilised soil, placing them in a cold frame. When the green, moss-like growth of the first stage in the Fern's life-history is fairly well advanced, remove it in small patches and introduce it to crevices in the wall during moist weather. Should drying winds be experienced after the completion of the work, it would be a good plan to moisten the wall several times a day.

ROSE GARDEN.

GRUSS AN TEPLITZ BADLY MILDEWED (X).—We think you would do well to cut away the badly-mildewed parts. All affected growths and foliage should be burnt at once to prevent the spread of disease. We should advise a good spraying after the cutting has been done, using either Cyllin Soft Soap or V2 K Fluid. Either of these applied with a fine sprayer, and repeated at intervals of three or four days, will keep mildew in abeyance.

MANURES FOR ROSES (A. N.).—As you are unable to obtain sufficient stable or cow manure for your Rose beds, we do not think you can do better than use Wakeley's Hop Manure. This is composed of spent Hops treated with chemicals, and, in addition to supplying plant food, adds humus to the soil. For this reason it is a good substitute for natural manure. It can be dug into the soil when new beds are being prepared, and can also be lightly forked in between established bushes.

SWEET BRIAR HEDGE (K. D.).—A Sweet Briar hedge would be a very nice addition to the old-fashioned garden, and this plant will grow almost anywhere, certainly in the North of Ireland. The plants are procurable from any of the well-known Rose nurserymen who advertise in our columns, and usually they cost about 20s. to 25s. per hundred; or you can obtain extra strong plants at an advanced price. Plant the Sweet Briars in November, and see that the soil is dug 2 feet deep and 1 yard in width for a single row of plants, setting them about eighteen inches apart. The walks should be about three feet wide.

FRUIT GARDEN.

PEAR MIDGE (G. P.).—The trouble is not due to the frost, but the fruits are attacked by the Pear midge (*Diphsis pyri*), to which we have referred several times recently. It is too late to collect the fruits now; it should have been done some time ago.

BLACK CURRANTS (R. B.).—The Black Currants were not in any way attacked by insects or fungi. The probable explanation of the trouble with them is that they had become dry, and that, with the water supply suddenly given, the interior swelled more quickly than the skin could keep up with. They were abnormally full of seeds, and this may account for some of the cracking, for the pulpy part of the Black Currant consists largely of the much-swollen testas of the seeds.

PEAR LEAF-BLISTER (H. M. B.).—The leaves of the Pear are attacked by the Pear leaf-blister mite. The pest appears to have been spreading rapidly during the last few years, and it is the cause of considerable damage when numerous. The mites hibernate in colonies of several individuals under the scales of the buds, and, as soon as the leaves begin to develop in the spring, the mites enter them through the several openings, and their presence causes the production of a small reddish gall. If many mites attack a leaf, it frequently happens that the leaf falls

long before it ought to do so. The female lays a few eggs inside the gall and, after hatching, the young mites make their way to other leaves, which they enter, or may even enter fresh places on the same leaf, galls developing as before. There are several broods in a year, and the mite spreads with each one of them. About September the young mites make their way to the winter buds, there to pass the cold season. All young nursery stock, if there is any fear of it being infested with the mite, should be fumigated with hydrocyanic acid gas, and older stock should be sprayed while it is dormant with the Oregon Winter Wash, made by mixing 3lb. of quicklime and 1lb. of caustic soda together, and slake with hot water in which 3lb. of flowers of sulphur have been well stirred. Stir the mixture and add 3lb. of common salt. Allow to boil for some time, then add water to make up to ten gallons. At about the end of May or in June, perhaps some good might be done by spraying with paraffin emulsion or with a nicotine wash.

MISCELLANEOUS.

INSECTS EATING LEAVES AND CROWNS OF WATER LILIES (G. W., Surrey).—The only thing we can suggest is that you have the pond thoroughly cleaned out next winter, removing all mud, soil and plants. Then make up beds of new soil and plant a fresh lot of Water Lilies. When once a pond and the plants become badly infested with such a pest, there is little use in trying to combat it by the use of insecticides, for what would kill the insects would be likely to kill the plants also.

LARVÆ FOR IDENTIFICATION (M. M. E.).—The grub sent is one of those known as surface caterpillars, and is apparently that of the Turnip moth (*Agrotis segetum*). There are several species with similar habits, burrowing into the ground during daylight and feeding on a variety of plants during the night. The best method of dealing with them, since no poison can with safety be used upon Lettuce, is to hand-pick them. Searching round the plants attacked to 2 inches down will not fail to reveal the pests if they are present. They are easily killed, and instantaneously, by dropping them into boiling water or paraffin.

INSECT PESTS (Miss K. D.).—Earwigs are sometimes very annoying, and occasionally troublesome. They are not without redeeming features, however, for they are carnivorous and devour some kinds of noxious insects. Where they are very numerous, they may be trapped by putting inverted pots with a little hay or straw near their haunts. They will seek refuge in the pots, and the latter may be examined daily and the earwigs shaken into hot water, or water in which a layer of paraffin is floating. Another good trap, used in a similar way, is furnished by dry Bean-stalks. They will creep into any dark crevice, and occasionally, but very rarely, get into the ears of people; but this is very rare indeed, and must be very uncomfortable for the earwig. Woodlice are best caught by putting hollowed-out pieces of Potato, hollow side downwards, near their haunts. These should be examined from day to day.

NAMES OF PLANTS.—*Amateur.*—1, *Phyllanthus* species; 2, *Tropæolum tuberosum*; 3, *Oenothera speciosa* rosea; 4, *Erigeron multiradiatus*; 5, *Geum chilense* miniatum; 6, *Calycanthus occidentalis*; 8, *Erigeron philadelphicus*; 9, *Sisyrinchium angustifolium*; 10, *Cistus*, probably *C. corbairiensis*; 11, *Veronica Hectori*; 12, Rose, variety not known; 13, *Spiræa discolor*; 14, *S. Menziesii* triumphans; 15, *Spiræa* species, flowers required for identification; 16, *Cistus villosus*; 17, *Aralia chinensis* rancens; 18, *Acanthus mollis*; 19, *Cornus alba* Spæthii; 20, *Echeveria* species.—*R. A.*—1, *Inula ensifolia*; 2, *Serratula* species; 3, not recognised; 4, *Aster Linosyris*.—*Thornton-le-dale.*—*Lonicera sempervirens* (the North American Honeysuckle).—*N. N.*—1, *Juglans nigra* (Black Walnut); 2, *Juglans regia* (common Walnut).—*F. Dean, New Southgate.*—Yellow flower, *Statice Bonduelli*; blue flower, *Statice sinuata*.—*Jasom.*—*Spartmannia africana* (the African Hemp).—*D. M. M.*—*Chrysanthemum segetum* (Corn Marigold).—*Mrs. A. T. Ferris.*—We believe the Rose to be the Hybrid *Polyantha floribunda*.—*F. Lurani.*—*Rosa indica sanguinea*.

NAMES OF FRUIT.—*C. A. R., Kent.*—1 and 9, Doyenné du Comice, dessert; 2, Beurré Hardy, dessert; 3, Beurré d'Anjou, dessert; 4 and 6, Brown Beurré, dessert; 5, Cox's Orange Pippin, dessert; 7, Baronne de Melo, dessert. There was no No. 8. We cannot undertake to return samples.—*W. M., Chiswick.*—Yes; Beauty of Kent.—*Mrs. C., Hants.*—The same Apple is known in this country as Emily Childs.—*Mrs. V. G. K., Dorset.*—Apple Gravenstein, the true variety.—*Mrs. G., Oxford.*—1, Catillac; 2, Marie Louise; 3, Urbaniste.—*Perplexed.*—Beurré Hardy.—*A. R. L., Hants.*—1, Striped Beaufin; 2, Durondeau; 3, General Todleben.—*R. G.*—1, Marie Louise; 2, Beurré Hardy; 3, Gansel's Bergamot; 4, Beurré Clairgeau; 5, Swan's Egg; 6, too poor to name; 7, Durondeau; 8, Bismarck; 9, Lady Henniker; 10, Hawthornden; 12, Yorkshire Beauty; 13, Wellington.—*F. Clarke.*—The Apple you send is Maltster. It can be used for dessert or cooking. We hope you will subscribe to THE GARDEN regularly now.—*E. H.*—1, Beurré Diel; 2, arrived rotten; 3 and 6, Marie Louise; 4, Beurré Superfin; 5, Pitmaston Duchess; 7, Doyenné du Comice; 8, Beurré d'Anjou; 9, Vicar of Winkfield; 10 and 19, Beurré Hardy; 11, Louise Bonne de Jersey; 12, Aspasie Aucourt; 13, Comte de Lamy; 14, General Todleben; 15, Bergamotte Espere; 16, Duchesse de Angoulême; 17, Beurré Bachelier; 18, Doyenné Boussoch.—*J. E. G. L., Chesham.*—Pear Urbaniste.—*Mrs. W., Ipswich.*—1, Jean van Geert; 2, Marie Louise; 3, Easter Beurré; 4, Apple Lady Henniker. Nos. 2 and 3 are dessert, and No. 4 is used both for dessert and cooking.

SOCIETIES.

THE NATIONAL VEGETABLE SOCIETY.

THE third annual exhibition in connection with the above society was held in the Clarendon Hall, Watford, on the 2nd inst. The Earl of Clarendon kindly opened the show, and in an excellent speech referred to the high quality of the exhibits and the good work which the society, in his opinion, were doing in bringing before the public vegetables of such high quality. Taken as a whole, the show was exceedingly good, and it is doubtful whether such a display has ever been seen anywhere in the United Kingdom so late in the year.

NON-COMPETITIVE EXHIBITS.

The Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett), showed a very beautiful and comprehensive collection of high-class vegetables. In addition to such kinds as Potatoes, Carrots, Leeks, Brussels Sprouts, Onions and other ordinary vegetables, many of the rarer kinds were included, such, for instance, as Salsify, Scorzonera, Celeriac, Capsicums, Aubergines and Kohl Rabi. Needless to say, the whole of the vegetables were in the very pink of condition, and the staging was some of the best we have ever seen. We are indebted to Messrs. Sutton and Sons for the photograph of this exhibit, reproduced on page 524, all the vegetables included in it being grown from their seeds. Large gold medal.

Messrs. Dobbie and Co. had a beautiful collection of Potatoes, these being neatly staged in baskets on tiered staging. No fewer than fifty varieties were in the exhibit, these including Improved Factor, said to be a tremendous cropper; Midlothian Early, grown in Essex and Scotland respectively to show the difference of the skin texture in different soils; White City and the richly-coloured Herd Laddie. Silver-gilt medal.

The collection staged by Messrs. Barr and Sons, King Street, Covent Garden, was an exceedingly good one, and comprised a vast number of kinds, the whole being most artistically staged. Celery, Leeks, Cauliflowers, Beetroots, Onions, Lettuces, Carrots, Capsicums, Beans, Kohl Rabi and Potatoes were a few that called for special mention. Gold medal.

Messrs. Dickson and Robinson, Manchester, put up an attractive exhibit of their Premier Onion, a variety that has created considerable interest in various parts of the country. Silver medal.

Messrs. Gleeson and Co. of High Street, Watford, decorated the platform in a most artistic manner, tall Palms and other foliage plants being tastefully arranged on the main portion with beautiful examples of the florists' art, as well as a fine display of Michaelmas Daisies in the foreground. Gold medal.

Messrs. H. Lane and Sons, Berkhamsted, staged a large and representative collection of Apples, with some Pears and a few good dishes of Nuts. The large variety of Apples attracted much attention from visitors, who were able to see the best sorts for cultivation. Silver-gilt medal.

THE SOCIETY'S CLASSES.

In the premier class for twelve kinds of vegetables, the first prize was won by His Grace the Duke of Portland K.G. (gardener, Mr. J. Gibson), with a wonderful collection, in which the Carrots and Parsnips were exceptionally fine. Indeed, we doubt whether better have ever been seen. Second honours went to Mr. J. Hudson, Gimson Road, Leicester, his Onions and Cucumbers being of very high quality and the whole well staged. Third and fourth prizes were awarded respectively to W. H. Henderson, Esq., Serge Hill, King's Langley (gardener, Mr. F. L. Pike), and Messrs. Lobjoit and Son, Heston Farm, Hounslow.

In a similar class for nine kinds, distinct, first prize went to H. T. Tatham, Esq., Kendall Hall, Elstree (gardener, Mr. W. Gaiger). This exhibit was put up in a most attractive manner, the Carrots, Onions and Leeks calling for special praise. John Kerr, Esq., Rickmansworth (gardener, Mr. T. Avery), was a very good second, his Onions and Carrots being of particularly fine quality. C. H. Fritton, Esq., Grove Mill House, Watford (gardener, Mr. E. Woolf), was third.

For nine Tomatoes, one variety, quality and flavour to be the first consideration, there were eight entries, first honours going to Mr. J. Hudson, Leicester, for a fine dish of New Emperor. Second prize was won by the Duke of Portland, and third by Mrs. Denison, Little Gaddesden (gardener, Mr. A. G. Gentle).

For six Leeks there were three entries, first honours going to Mr. T. Jones, Ruabon, for a fine half-dozen of Champion. Mr. J. Hudson of Leicester was a good second with the same variety, and Mr. T. Fellows, King's Langley, was placed third.

For a collection of six kinds of vegetables, distinct, to be grown by the competitor, open only to bona-fide cottage gardeners or allotment-holders in the county of Herts, there were nine entries, first prize going to Mr. W. Humphrey, Elstree, whose Cauliflowers, Onions and Celery were excellent. Mr. A. E. Dawes, Watford, was a good second. Third, fourth, fifth and sixth prizes were awarded respectively to Mr. H. Blake, Elstree; Mr. A. Madgwick, King's Langley; Mr. F. J. Gentle, King's Langley; and Mr. J. Day, Berkhamsted.

For nine Tomatoes the Rev. T. McMurdie was first with a superb dish, the whole being particularly well finished.

For six Red Intermediate Carrots there were no fewer than eleven entries, the first prize going to Mr. T. King, Bromham, Chippenham, for a wonderful half-dozen. Mrs. E. H. Denison was a close second, and Mr. J. White, Bampton, Oxford, third.

In a similar class for six Model Parsnips there were six entries, Mrs. E. H. Denison being a good first with

very high quality produce. Mr. J. White was second and the Rev. T. McMurdie third.

For six Long Crimson Beet, A. B. H. Goldsmidt, Esq., Mildenhall (gardener, Mr. T. Hatch), was first out of twelve competitors, second and third prizes going respectively to Mr. W. Humphreys, Elstree, and Mr. J. White, Bampton.

In Classes 1 to 10, prizes offered by Messrs. Barr and Sons, there was fairly good competition in most of them. For six Potatoes Scottish Chief, the first prize went to Mr. A. Evans, Radnorshire. Mr. J. White, Bampton, Oxford, was first for six Cabbages Little Queen; and Mr. R. Stannard, Panshanger, Herts, was first for six Cabbage Savoys Barr's New Cone-headed.

For six Stump-rooted Scarlet Carrots there were twelve entries, Mr. A. Evans, Radnorshire, being first with beautiful roots.

For six Crimson Globe Onions, H. T. Tatham, Esq., was first, his bulbs being superb.

In Classes 11 to 21, prizes offered by Messrs. William Cutbush and Son, competition was very good, particularly for Parsnips and Carrots. For six Onions, Mrs. E. H. Denison, Little Gaddesden, was a good first, the bulbs being large, yet of good quality. For six heads of Celery, Mr. W. Humphreys, Elstree, was a good first, Mrs. E. H. Denison and Miss Somers, Bushey, being second and third respectively.

Four entries were staged for six Leeks, the Rev. T. McMurdie, Weybridge (gardener, Mr. A. Basile), being

Birmingham, third. A similar number of dishes were staged in a class for Hercules Pea, Mr. T. Jones and the Rev. T. McMurdie being first and second respectively, third honours going to the Marquis of Northampton. For six Exhibition Leeks there were eight entries, the Rev. T. McMurdie being first with some splendidly-grown samples. For a dish of Scarlet Runner Beans, Mrs. M. Knox was a good first, the Rev. T. McMurdie occupying a similar position for Giant French Beans. This gentleman was also first for Selected Alderman Peas with some particularly good produce. For three Marrows, Mrs. Denison was first, and Viscount Goschen received premier honours for a dish of Carltonian Potatoes, there being ten entries. Miss Langworthy, Holyport (gardener, Mr. T. J. Brown), was second, and Mr. E. Deakin, Hay Mills, Birmingham, third.

For six Perfection Intermediate Carrots no fewer than eleven exhibits were staged, Mrs. E. H. Denison being first with some remarkably good roots. Mr. W. Colman of Birmingham was a good second, and Mr. A. Evans, Radnorshire, third.

For six heads of Prize Pink Celery seven groups were staged, Miss Alleard, Horsham (gardener, Mr. T. Sparkes), being placed first for some superb heads. The Rev. T. McMurdie was second, and Mrs. E. H. Denison third.

For six Market Favourite Beet there were thirteen entries, Mr. J. White, Bampton, Oxford, being first with particularly clean roots. The Marquis of Northampton was a good second, and the Right Hon. T. F. Halsey third,

Messrs. Clay and Son, Stratford, offered the prizes in Class 41 for six dishes of Potatoes, distinct. Mrs. Denison, Little Gaddesden (gardener, Mr. Gentle), took first place with the following varieties: Emperor, Royalty, King Edward VII., Excelsior, Snowball and Long-keeper. Mr. M. Hoad, Wellborough, Kent, was second; and the third place was taken by Viscount Goschen, Hawkhurst (gardener, Mr. J. Gilmour).

In Class 42 prizes were given by Messrs. Watkins and Simpson for the best collection of vegetables grown from their seeds. Messrs. Lobjoit and Son, Hounslow, were awarded the first prize for a very good exhibit.

In Classes 43 to 54 the prizes were offered by Robert Sydenham, Limited, Birmingham. In Class 43 some excellent collections of vegetables were staged, and the judges awarded the first prize to Mr. T. Jones, Ruabon, for an excellent exhibit which consisted of Autumn Giant Cauliflower, Ailsa Craig Onion, Up-to-date Potato, Dwarf Gem Brussels Sprouts, Hollow Crown Parsnip, St. Valery Carrot and Holmes' Supreme Tomato. The second award was given to Mr. J. White, Oxford.

Class 44, for eight distinct vegetables, was not so keenly contested as the previous class, but all entries were of excellent quality and were well staged. The first place was taken by Mr. E. Deakin, Birmingham, and the second by Messrs. Lobjoit and Son, Hounslow.

In Class 45 prizes were offered for the best eight Onions of one variety, and the premier award went to Mrs. Jenner, Wiemore Castle (gardener, Mr. W. Wheeler), for some excellent bulbs of Ailsa Craig.

In Class 46, for six Lyon Leeks, the first prize was awarded to the Rev. T. McMurdie, Woburn Park, Weybridge; and the second to Mr. E. Deakin, Birmingham.

The first award in Class 47, for eight Tomatoes, was given to Mr. E. Deakin, Birmingham, for a splendid dish of Holmes' Supreme. The second prize was won by Mr. J. White, Oxford, for a dish of Perfection.

Class 48, for three Cauliflowers, contained some excellent specimens, and the Rev. T. McMurdie of Weybridge (gardener, Mr. A. Basile) carried off the premier award for three splendid heads of Autumn Giant.

Class 49, for two dishes of Potatoes, was fairly well contested, and the first and second awards were given to R. H. Ling, Esq., Berkhamsted (gardener, Mr. D. Bedford), and the Rev. T. McMurdie, Weybridge (gardener, Mr. A. Basile), respectively.

In Class 50 competition was very keen, and the six heads of Celery for which the Rev. T. McMurdie was awarded the first prize deserve special mention. The variety shown was Bibby's Defiance. The second prize was won by Mr. T. Jones, Ruabon, with the same variety.

In Class 51 prizes were offered for eight Turnips. The first prize was won by R. H. Ling, Esq., Berkhamsted (gardener, Mr. D. Bedford).

Class 52 (six Parsnips) contained some splendid roots, and Mr. J. West, Oxford, carried off first honours for six almost perfect specimens.

In Class 53 (six Carrots) all the exhibits were of fine quality, and Mr. J. White, Oxford, took first place for some splendid roots of St. Valery; and Mr. T. King, Chippenham, was awarded the second prize for specimens of the same variety.

The quality of the exhibits in Class 54, for six Long Beet, was not so marked as in the two previous classes, but the first-prize exhibit awarded to Mr. E. Deakin consisted of excellent roots.

Messrs. J. K. King and Sons, Coggeshall, offered prizes in Class 56 for a collection of vegetables grown from their seed, and the second prize was given to Mr. G. Rickett, Croxley Green, the only exhibitor in this class, no first prize being awarded.

In Class 55 the prizes were offered by Messrs. Gleeson and Co., Watford, for a collection of vegetables grown from their seed. The first prize was awarded for an excellent exhibit to the Marquis of Northampton, Castle Ashby (gardener, Mr. A. R. Searle), and the second to H. T. Tatham, Esq., Elstree (gardener, Mr. W. Gaiger).

The entries in Class 57 for three dishes were very numerous and the competition keen. The first prize was awarded to Mrs. E. H. Denison, Little Gaddesden, Herts (gardener, Mr. A. Gentle). The winning dishes consisted of Potatoes King Edward VII., Royalty and Snowball. Viscount Goschen, Hawkhurst (gardener, Mr. J. Gilmour), obtained the second prize. Prizes in this class were given by Messrs. H. Lane and Son, Great Berkhamsted.

The society's classes open to amateurs and cottagers only were 58 to 75.

Class 58 (six kinds of vegetables) was well contested, and Mr. H. Keep, Aldermaston, was awarded first prize for some splendid vegetables. Mr. W. Coleman, Buckingham, obtained second place.

In Class 59 prizes were offered for three kinds of vegetables. The first prize was taken by Mr. H. Andrews, Berkhamsted, with Cauliflower, Celery and Ailsa Craig Onion. Mr. C. King, Chippenham, was awarded the second prize.



THE NON-COMPETITIVE EXHIBIT OF VEGETABLES SHOWN BY THE HON. VICARY GIBBS AT THE NATIONAL VEGETABLE SOCIETY'S EXHIBITION.

first with beautiful produce. Mr. R. Staward, Panshanger, was second, and Mrs. M. Knox, Holt Hatch, Alton, Hants, third.

In Classes 22 to 25, prizes offered by Messrs. Dickson, Brown and Tait, the entries were not quite up to the average. C. H. Fritton, Esq., Watford, was first for a truss of Tomatoes; Mr. T. Jones, Ruabon, first for two Cucumbers; the Marquis of Northampton, Castle Ashby (gardener, Mr. A. R. Searle), first for Cauliflowers with beautiful curds, and also for six heads of Celery, these being particularly fine.

In Classes 26 to 39, prizes offered by Messrs. Dickson and Robinson, the competition was very keen, particularly for Leeks, Carrots, Celery and Cauliflowers. For two bunches of Moneymaker Tomato, H. W. Henderson, Esq., King's Langley (gardener, Mr. F. L. Pike), was a good first with well-finished produce.

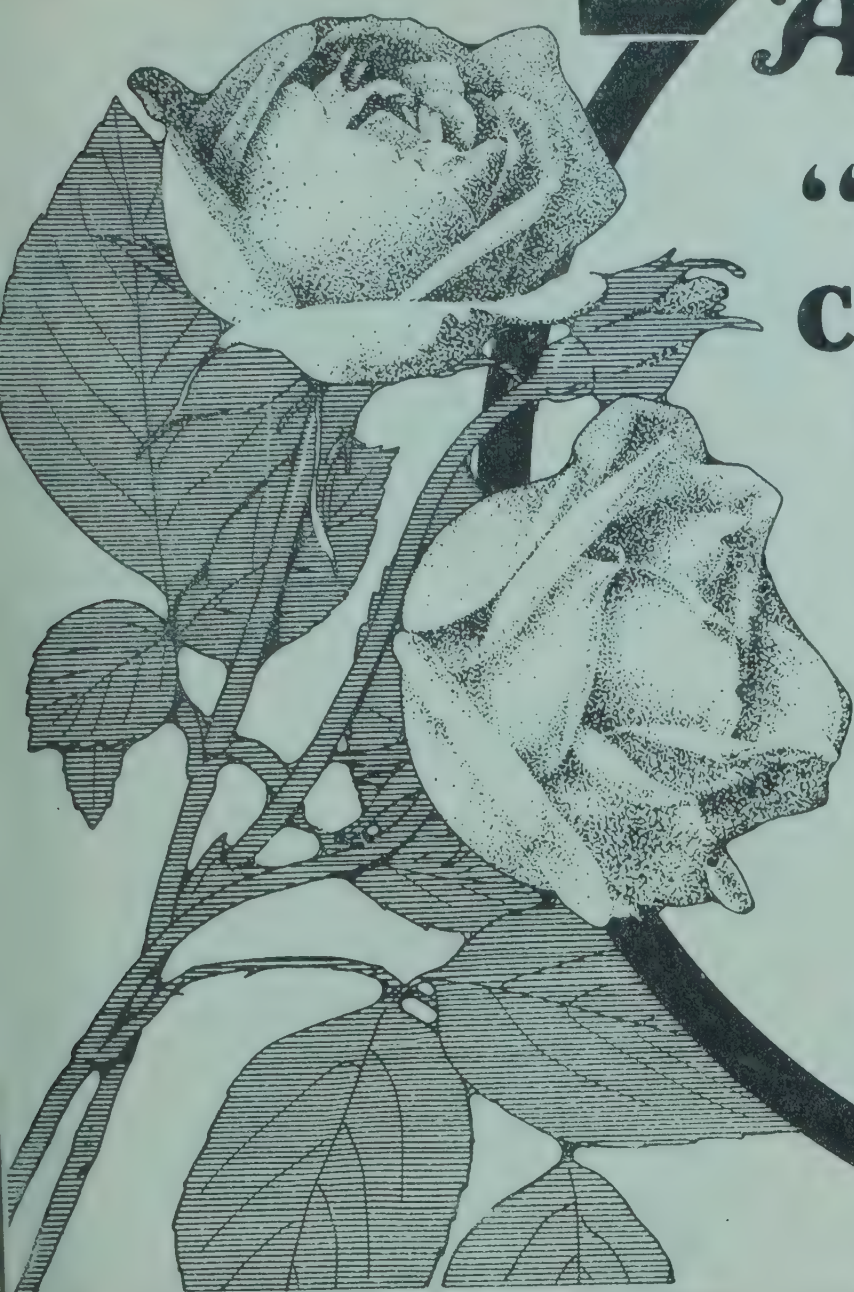
For six Premier Onions, J. Kerr, Esq., Rickmansworth (gardener, Mr. T. Avery), was first out of nine competitors; second and third prizes going respectively to Miss Jenner, Wenvoe Castle, Cardiff (gardener, Mr. H. Wheeler), and the Right Hon. T. F. Halsey, Hemel Hempstead (gardener, Mr. H. Folkes). The whole of the produce in this class was of exceptionally good quality. For thirty pods of New Lancastrian Pea there were seven exhibits, Mr. T. Jones, Ruabon, being first with splendid pods. The Rev. T. McMurdie was second, and Mr. W. Colman,

competition being very keen. Mr. W. Coleman, Buckingham, was first for a dish of Runner Beans, these being exceptionally good. J. Kerr, Esq., was placed second, and the Rev. T. McMurdie third.

The exhibits of Cabbage Lettuce Lord Kitchener were exceptionally fine, the first prize collection, staged by H. W. Henderson, Esq., King's Langley, being the best we have ever seen at this season. Mr. F. J. Gentle, King's Langley, was a good second, and the Rev. T. McMurdie third. For Standwell Cauliflowers, Mr. W. Coleman, Mrs. E. H. Denison and the Right Hon. T. F. Halsey won in the order named, the whole of the produce being excellent.

For six Manchester Market Turnips, Mrs. E. H. Denison was first out of fourteen exhibitors, the roots being exceptionally clean and even. Mr. J. White was a good second with larger roots, and J. Kerr, Esq., third. Mrs. Denison was also first for six Selected Sugar-loaf Cabbages, J. Kerr, Esq., occupying a similar position for six Parsnips.

Competition was very keen in Class 40, in which prizes were offered by Mr. W. E. Sands, Ireland, for two dishes of Potatoes, one each of Erin's Queen and Irish Hero. W. H. Henderson, Esq., King's Langley (gardener, Mr. Pike), took the first prize; Mrs. E. H. Denison, Little Gaddesden (gardener, Mr. A. Gentle), the second; and the third was awarded to the Hon. Miss Plunkett, Dundalk, Ireland (gardener, Mr. R. Bloomer).



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There were a large number of entries in Class 60 for the best three dishes of Potatoes, the first prize going to Mr. C. E. Hood, Willesborough, Kent, and the second to Mr. W. Coleman, Buckingham.

Class 61, for two dishes of Potatoes, white and coloured, was also a popular one. Mr. W. Coleman, Buckingham, secured the first, and Mr. J. Baker, Woolwich, S.E., the second prize.

Class 62, for the best six Onions, attracted a large number of entries. Mr. H. Keep, Aldermaston, took first place, and Mr. E. Howlett, Radlett, second.

The competition for the best six Parsnips was a good one in Class 65, all the exhibits being of splendid quality. The first prize was won by Mr. T. Jones, Ruabon, and the second by Mr. T. King, Chippenham.

In Class 66 (six Turnips) competition was keen. Mr. F. J. Gentle, King's Langley, took the first place, and Mr. W. Coleman, Buckingham, the second.

Some good Carrots were shown in Class 63, in which prizes were offered for the best six roots. Mr. J. White, Oxford, took the first prize, and Mr. W. Coleman, Buckingham, the second. Both competitors staged some excellent specimens.

In Class 64 (six Beetroots) there were a goodly number of entries, but the quality varied more than in any class in the show. Mr. E. Deakin was placed first with six splendid roots, and the second prize was awarded to Mr. J. White, Oxford.

In Class 67, eighteen exhibitors competed for the prizes offered for the best three sticks of Celery. Mr. T. Jones, Ruabon, was awarded the first, and Mr. H. Andrews, Berkhamsted, the second prize. All the exhibits in this class were very good.

Mr. H. Keep, Aldermaston, was awarded the first prize in Class 68 for the best twenty-four Runner Beans, and Mr. W. Coleman, Buckingham, was second.

Some good Cauliflowers were shown in Class 69 by numerous competitors, Mr. W. Coleman taking the premier award.

There were few competitors for the best six Leeks in Class 70. Mr. J. Cady of Sudbury took first place with some fine specimens.

The judges found it difficult to find the best twenty-four pods of Peas in Class 71, in which a large number of very excellent dishes were staged. The first prize was awarded to Mr. W. Coleman, Buckingham, and the second to Mr. T. Jones, Ruabon. In both cases The Gladstone was the variety shown.

Mr. R. G. Holdstock, Luton, was awarded first prize for two Marrows in Class 72, and Mr. T. Jones, Ruabon, the second.

In Class 73, for the best nine Tomatoes, some splendid fruit was shown, and the first prize was awarded to Mr. T. Jones, Ruabon, for a dish of Perfection.

Entries were numerous for the best twenty-four Shallots in Class 74, and all the dishes were exceptionally good. Mr. B. Green, Watford, took first honours in a very keenly-contested class, and Mr. W. Albone, Luton, was second.

Mr. T. Fellowes was awarded first prize in Class 75 for the best four bunches of herbs.

ROYAL HORTICULTURAL SOCIETY.

THERE was a brilliant show of hardy flowers, comprising early-flowering Chrysanthemums, perennial Asters and Roses, at the fortnightly meeting of the above society, held at the Royal Horticultural Hall, Vincent Square, Westminster, on Tuesday last. As an October show it was remarkably good, and, in addition to the above-mentioned features, Dahlias, hardy shrubs with ornamental foliage, and Bamboos were well represented; while an excellent collection of Apples and Pears received the high award of a gold medal.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), Messrs. E. Beckett, J. Willard, J. Davis, T. Coomber, J. Basham, A. Bullock, Owen Thomas, P. C. M. Veitch and W. Poupert.

One of the most attractive features of this exhibition was the extensive collection of Apples and Pears shown by Messrs. James Veitch and Sons, Chelsea. The fruit throughout reflected the highest credit on this well-known firm. The Apples were of good size, well coloured and free from any blemish, and the Pears were of equally high quality. All the fruit was staged in baskets of varying sizes. There were no fewer than 216 varieties in all, and the staging, 48 feet by 6 feet, was filled throughout. The collection was interspersed with standard Crataegus trees, each carrying a crop of small, showy fruits. The new Apple Rev. W. Wilks, a large cooking variety, raised by crossing Peasgood's Nonsuch and Ribston Pippin, was shown in grand form. Gold medal.

An exhibit of Apples and Pears was sent by the Marquis of Ripon, Coombe Court Gardens, Kingston Hill (gardener, Mr. Thomas Smith). The collection contained some particularly good dishes of Apples Golden Noble, Cox's Pomona (especially well coloured), Emperor Alexander, James Grieve, Dutch Codlin and Bismarck. Silver-gilt Banksian medal.

From the Barnham Nurseries, Limited, Barnham, Sussex, came a fine collection of Apples and Pears, staged in a very pleasing way with autumn-tinted foliage and berried plants, which entered into perfect harmony with the splendidly-coloured fruit produce. Of the Apples we were particularly well impressed with the baskets of Potts' Seedling, Coronation, Gascoyne's Scarlet, Rival, James Grieve, Charles Ross, Christmas Pearmain and Allington Pippin. Silver-gilt Knightian medal.

A silver Banksian medal was awarded to Mr. H. Woodgates of Worcester Park for four excellent dishes of Apples.

A very extensive collection of Onions (Webb's varieties) was staged by Mr. Staward, gardener to Lady Cooper, Panshanger, Hertford. The varieties shown varied from

pickling size to the largest exhibition bulbs. The produce was particularly fine, and bore evidence of the good year for Onions we have experienced. Silver-gilt Banksian medal.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), and Sir Harry J. Veitch, Sir Jeremiah Colman, Messrs. James O'Brien, R. A. Rolfe, J. Wilson Potter, W. Thompson, R. G. Thwaites, F. J. Hanbury, T. Armstrong, A. McBean, C. H. Curtis, J. Charlesworth, J. Cypher, W. H. Hatcher, W. P. Bound, J. E. Shill, H. G. Alexander, A. Dye, W. H. White, G. Wilson, W. Bolton, J. S. Moss and de B. Crawshaw.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, were represented by a nice group of Cattleyas and Oncidiums. Stanhopeas and Brassavolas, with their singular-looking flowers, were included. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, showed Cypripediums and Cattleya hybrids in quantity. Cypripediums Thalia, Franconia and leucoxantha were well shown among a very fine lot.

Some very choice hybrids, comprising Sophro-Laelias and Laelio-Cattleyas, were shown by H. S. Goodson, Esq., Fairlawn, Putney (gardener, Mr. G. E. Day). Silver Flora medal.

A similar award was made to E. H. Davidson, Esq., Borlases, Twyford, who sent a very fine group of Cattleya labiata Davidson's variety, flowering to perfection.

Messrs. J. Cypher and Sons, Cheltenham, showed a bright collection of Cypripediums and Cattleyas. Silver Banksian medal.

A beautiful specimen of Catasetum splendens Imperiale was shown by a Continental firm.

A silver Flora medal was awarded to H. T. Pitt, Esq., Stamford Hill, London, for an interesting group of Orchids, in which Miltonias, Odontoglossums and Cattleyas were represented.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. J. Green, W. J. Bean, C. Blick, R. Hooper Pearson, J. F. McLeod, J. Jennings, W. Howe, J. Dickson, C. Dixon, H. J. Jones, C. E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins, W. J. James, W. G. Baker and G. Reuthe.

A magnificent group of hardy shrubs and deciduous trees in pots from Messrs. James Veitch and Sons, Limited, Chelsea, occupied the whole of one side of the hall, constituting there a great feature of the meeting. As an exhibit of the useful and ornamental it commanded attention at once, and not less so by the remarkable beauty and variety it contained. Berried plants were abundant and good, also the coloured-leaved plants, which are so great an ornament in the garden at this time. With so extensive an assortment it is only possible to select a few, and we take such as Crataegus Lelandii, a mass of scarlet berries; Berberis stapfiana, full of coral red berries on an erect bush 3 feet high and through; B. Wilsonæ, an inimitable sub-erect shrub full of brilliant coral red fruits, and of which a score of plants constituted a good central margin; Stranvesia undulata, of distinct habit with rich scarlet fruits; Cotoneaster rugosa Henryii, of tall, diffused tree-like habit, whose pendent branches are loaded with scarlet berries. These were some of the most distinct and ornamental of the fruiting examples shown. Sarcococca ruscifolia, Viburnum Davidii, V. rhytidophyllum, Lonicera nitida, Arbutus quercifolia, Ilex Veitchii, I. Pernyii, Osmanthus armatus and Viburnum buddleiaefolium were among other beautiful new and rare species of which this remarkable group teemed. Liquidambar formosana and Pyrus veitchiana, new species exhibited for the first time, were also noted in a group full of interest from end to end. Cotoneaster harroviana is also new and distinct. In another direction Messrs. Veitch were responsible for a brilliant display of Nerines, white and red Lapagerias, Bouvardias and the rarely-flowered Amaryllis reticulatus from Brazil.

Messrs. Lilley, Guernsey, brought a charming lot of Nerines and Belladonna Lilies, the former largely predominating. Of these, N. Bowdeni was in great array, while such as N. coruscans major, N. elegantissima and N. Fothergilli elegans were all seen in fine groups. N. flexuosa was also noted.

Messrs. William Cutbush and Sons, Highgate, N., had a particularly fine group of Michaelmas Daisies arranged near the Orchid Annex. The bold groups of things were a great attraction, and such as Climax. St. Egwin (rosy lilac), Peggy Ballard (rosy mauve, a good addition to the semi-doubles), Desire (a pretty ericoides form), with Lustre, lævigatus and many forms of A. Amellus made up a good group.

One of the most interesting exhibits was that of Cape Heaths shown by Lady Grey, 22, South Street, Park Lane, W., the exhibit forming part of an exhibit of wild flowers held at Caledon, Cape Colony, on September 14 last. There were some fifty or so species and varieties, and had the collection been named, it would have proved one of the most fascinating exhibits of a very full meeting.

Messrs. Cragg, Harrison and Cragg, Heston, had a few splendid vases of Chrysanthemums, of which Juliet (of dull walnut tone), H. W. Thorpe (fine incurved white), Cranford Yellow, Mrs. Scott, Cranfordia (fine yellow) and Phoebe (mauve) were the best.

Messrs. Barr and Sons, Covent Garden, showed a table of early-flowering Chrysanthemums, Michaelmas Daisies, Nerines, Gladioli and pots of the sweetly-fragrant Acidanthera bicolor, which in itself was most charming. It is valuable, too, flowering at this time. Aster Amellus Beauté Parfait was very fine.

Right and left of the entrance, Mr. L. R. Russell, Richmond, had arranged a great bank of Bamboos, practically a representative gathering of these plants in specimen form, the examples being in the pink of condition, and some as much as 15 feet high.

Messrs. Stuart Low and Co., Enfield, had a fine lot of Carnations in handsome vases, of which Mikado, Baroness de Brien (fine pink), Rosette (rich cerise), Lady Alington, Cinnabar, Carola, Benora (probably the best of the striped fancies), Mrs. C. F. Raphael, Princess Juliana and Nicholas were among the best in a capital lot.

Mr. G. Reuthe, Keston, Kent, staged a variety of Michaelmas Daisies with Nerines, also an assortment of alpine and allied plants, of which Oxalis lobata, Primula capitata, Cyclamen hederifolium album, Galanthus Olgae, Gentiana Andrewsii and various Lewisias were among the more choice. A delightful lot of Saxifragas formed part of this exhibit.

Mr. Reginald Prichard, West Moors, Wimborne, Dorset, had a particularly neat and choice lot of alpines, such as Wahlenbergia vinecæflora, Polygonum vacciniifolium, Erigeron hybridum rosea, Helichrysum frigidum, Margyricarpus setosus, Origanum, Dictamnus, Pratia begoniæ-folia, Saxifraga diversifolia (very distinct yellow flowers and clammy stems) and Linaria origanifolia being among the finer things in a nice lot.

Messrs. J. Hill and Son, Barrowfield Nurseries, Lower Edmonton, had a glorious bank of the Bird's-nest Fern (Asplenium nidus-avis), from huge specimen examples to sporelings or yearlings in 3-inch pots. Some of the finer examples were about twenty years old, their huge, black-ribbed fronds five feet or so in length. The perfect condition of the plants was a great tribute to successful cultivation. Some excellent examples of Cibotium Schiedeii were also shown.

Messrs. Dobbie and Co., Edinburgh, had a very showy lot of Collarette Dahlias, the varieties in really good form for the lateness of the season. Obviously, too, these had escaped the frosts so generally experienced. Le Congo Belge (crimson), Frogmore (yellow and red), Prince de Venosa (cerise and white) and Princess Louise (fine crimson) were among the best.

Messrs. W. Fells and Son, Hitchin, showed an extensive assortment of Michaelmas Daisies in many of the showiest sorts.

Messrs. John Peed and Sons, West Norwood, S.E., had a fine display of specimen Chrysanthemums, chiefly in white, crimson and yellow. Single and early-flowering varieties were interspersed here and there, but none of the sorts was named.

Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, showed Roses in superb form, of which St. Helena (a new Hybrid Tea, flesh colour), Lady Hillingdon (in superb colour), Irish Elegance, Hugh Dickson (fine crimson), Corallina, Jessie (crimson Polyantha), Alexandra Zarifi (orange and crimson), Sulphurea, La Tosca, Rayon d'Or, Lyon Rose, Warrior and others were in superb condition, and for October garden Roses were grand.

Messrs. William Paul and Sons, Waltham Cross, again exhibited a superb lot of Roses in baskets and stands, Richmond, Mme. Abel Chatenay, Lady Downe, Ophelia (flesh), Lyon Rose, Mrs. A. R. Waddell (orange), Ruby, Florence Haswell Veitch (fine crimson), Corallina, Marquise de Sinety, Juliet, Pharisæer and Sulphurea being sufficient to show the great variety, while the high quality of the flowers demonstrated their indifference to climatic conditions.

Messrs. William Wells, Limited, Merstham, Surrey, showed some excellent Chrysanthemums, of which Mrs. Lloyd Wigg (soft yellow) and Celia (single, rich yellow) received awards of merit. White Queen, Altrincham Yellow (single), October Gold, Cranford Yellow, Thorpe's Beauty (bronze) and Wells' White were among the best in a nice lot.

Messrs. W. and J. Brown, Stamford and Peterborough, had a delightful lot of Roses, a splendid dozen of Juliet being quite a feature. Sunburst, Lyon, Duchess of Wellington, Comtesse du Cayla, Liberty, Gustav Grunerwald and Dorothy Page-Roberts were others in a remarkably good and well-arranged lot. A good batch of Dianthus Napoleon III. was also on view in this exhibit.

Messrs. G. and A. Clark, Limited, Dover, showed largely of Michaelmas Daisies, Pentstemons, Colchicums and other hardy flowers. Cimicifuga simplex is a perfect plant for autumn, the snow white racemes of flowers attracting all. Potentilla atrosanguinea was also effectively shown.

Messrs. H. Cannell and Sons, Swanley, staged a superb lot of Zonal Pelargoniums in handsome bunches, some three dozen vases of the flowers being most attractive. Herbert Marnham (cerise), Mrs. J. Ward (salmon), Lord Kitchener (scarlet) and George Reid (scarlet) were very fine. Some half-a-dozen specimen plants of Maxime Kovalesky (salmon scarlet) were quite a feature, being splendidly flowered. Helianthus sparsifolius was also well shown.

Messrs. J. Love and Son, Westbury-on-Trym, Bristol, showed a variegated Goat's Rue, Galega officinalis variegata Lovei.

Mr. W. E. T. Onegwersen, Croydon, showed a batch of Michaelmas Daisies raised by Mr. E. Ballard, Colwall, Herefordshire. Most of them were of the semi-double-flowered class, such as Glory of Colwall, Nancy Ballard (rosy mauve), Beauty of Colwall and Peggy Ballard being some of the more distinct.

Messrs. Allwood Brothers, Hayward's Heath, had a small exhibit of Carnations, Triumph, Baroness de Brien and May Allwood (salmon scarlet) being among the best.

Messrs. H. J. Jones, Limited, Lewisham, had a long table of Michaelmas Daisies in many of the best sorts.

Messrs. G. C. Price and A. B. Fyfe, Grove Park Nursery, Lee, S.E., displayed a capital group of Chrysanthemums in exhibition and early-flowering sorts.

Messrs. George Jackman and Sons, Woking, displayed Roses and herbaceous plants very finely, the former in huge bunches and in several dozen sorts, Betty, Irish Elegance, Hugh Dickson and Lady Hillingdon being some in a large gathering. Herbaceous plants were chiefly

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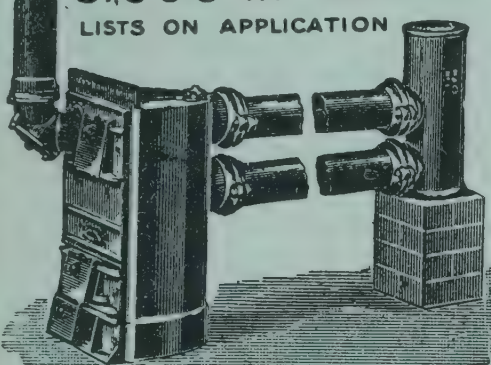
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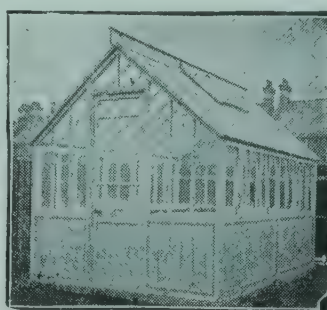
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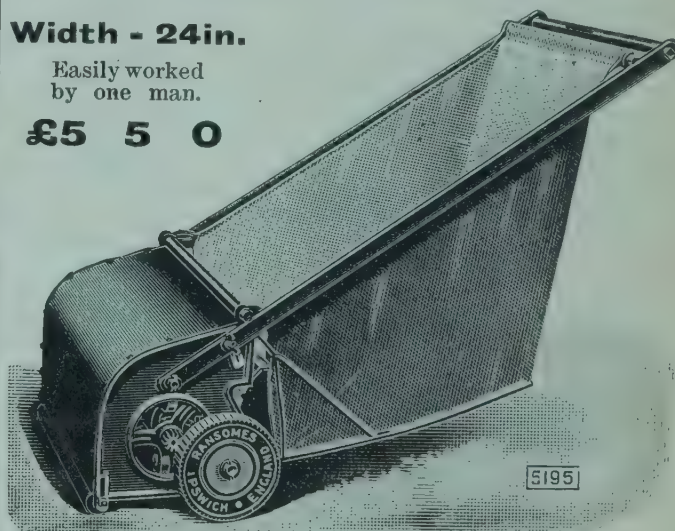
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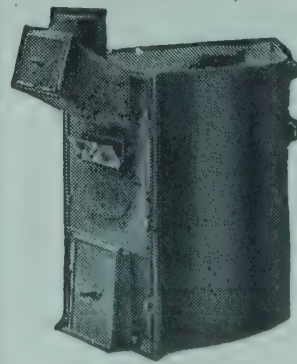
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of the Michaelmas Daisies, and these, too, were in great abundance and well shown.

The Misses Hopkins, Shepperton-on-Thames, had a small rock garden exhibit, with alpinas and other plants suitably arranged thereon.

Messrs. T. S. Ware, Limited, Feltham, showed a bank of Michaelmas Daisies with early-flowering Chrysanthemums, together with a splendid lot of double-flowered Begonias in great variety of colour and of superb quality. Dazzling in their brilliancy and fascinating by their size and variety, they were a great attraction.

Messrs. William Cutbush and Sons, Highgate, N., had a pretty group of Roses and Carnations, Jessie, Mrs. W. H. Cutbush and Baby Tausendschön forming a bed below a fine lot of Carnations, of which Mrs. L. Mackinnon, Edna and Countess of Lathom were the chief.

Mr. J. T. West, Brentwood, showed a very attractive table of Dahlias of Pæony, decorative and Cactus sorts.

Mr. Ernest Dixon, Putney and Rochampton Nurseries, showed Michaelmas Daisies of sorts, pans of Violas, Helianthus sparsifolius and other plants of autumn. Potentilla Gibson's Scarlet was also noted.

Messrs. Carter Page and Co., London Wall, displayed Michaelmas Daisies and Tufted Pansies in variety.

Messrs. H. B. May and Sons, Edmonton, had a capital table of Ferns, Nephrolepis and Davallias in variety and much beauty. The choicest things in this excellent group, however, were Adiantum cuneatum var. micropinnulum and Polystichum aculeatum gracillimum Drueryi, both gems of the first water.

Mr. J. Box, Lindfield, Sussex, had a superb group of herbaceous plants and Phloxes, with Gladioli, Helianthus sparsifolius, early-flowering Chrysanthemums, Pentstemons and Michaelmas Daisies. The herbaceous Phloxes Le Mahdi, Gloire du Marc, Europe and Widar (blue) we have never seen so fine in October before. Gladiolus princeps and G. America were superb.

FLORAL COMMITTEE'S AWARDS.

Gold Medal.—Messrs. Veitch, Chelsea, for trees and shrubs.

Silver Flora Medals.—Mr. Box, Lindfield, for hardy plants; Messrs. Brown, Peterborough, for Roses; Messrs. B. R. Cant, Colchester, for Roses; Messrs. Cutbush, Highgate, for Roses and Carnations; Messrs. Hill, Edmonton, for Asplenium Nidus-avis; and Mr. L. R. Russell for Bamboos.

Silver Banksian Medals.—Messrs. Barr for hardy plants; Messrs. F. Cant for Roses; Messrs. Dobbie for Dahlias; Messrs. Jackman for hardy plants and Roses; Messrs. Jones for Chrysanthemums and Roses, Mr. Lilley, Guernsey, for Nerines; Messrs. S. Low for Carnations; Messrs. May for Ferns; Messrs. W. Paul for Roses; Messrs. Ware for hardy plants and Begonias; Messrs. Wells for Chrysanthemums; and Mr. West, Brentwood, for Dahlias.

Bronze Banksian Medal.—Messrs. Cannell for Pelargoniums.

The committee desired to express their appreciation of the exhibit of South African Heaths shown by Lady Grey.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of the Scottish Horticultural Association was held in their hall, 5, St. Andrew Square, Edinburgh, on the evening of October 1. There was an excellent attendance, presided over by Mr. W. H. Massie, the president of the association. The exhibits were both numerous and attractive. Among the leading ones was a collection of Dahlias of various types from Messrs. Dobbie and Co., Edinburgh, these comprising a number of varieties of Coliarette, Cactus, Pæony, Pompon and other Dahlias of the most beautiful of the advanced types of each section. Early-flowering Chrysanthemum Cynthia was exhibited by the same firm. Messrs. Dobbie and Co. were honoured with awards of merit for their Coliarette Dahlia Princess Louise, the bedding Cactus Dahlia Marianne and the

Pæony-flowered Dahlia Kakadee. Mr. D. W. Thomson, Edinburgh, sent a choice and extensive collection of sprays of foliage of hardy shrubs and trees, which was highly commended. From Mr. Ballard, The Court, Colwall, came new perennial Asters Glory of Colwall and Nancy Ballard, very fine varieties, for which first-class certificates were awarded. Aster Beauty of Colwall was nicely shown by Messrs. Todd and Co., Edinburgh, and Messrs. Dicksons and Co. exhibited Kniphofia Marie Dirken (award of merit). Mr. Massie exhibited magnificent fruits of Pear Pitmaston Duchess.

The paper of the evening was given by Mr. A. D. Richardson, the secretary of the association, the subject being "Edinburgh's Park and Other Trees." It was illustrated by a number of lantern slides, and proved of great interest to the audience. Mr. Richardson properly pointed out that although Edinburgh did not compare favourably with many other cities in the way of street trees, it was otherwise with those in the parks and gardens, where many are seen to thrive admirably, even in the closer parts of the city. He discussed the best genera and species, speaking highly in favour of the Pyruses, particularly P. intermedia, the London Plane, the English Elm, the Huntingdon Willow and the white Poplar. Beeches seemed to be dying off gradually. The paper was of great value, and Mr. Richardson was accorded a warm vote of thanks on the motion of Mr. M. Todd. A succinct account of a recent visit paid to Normandy was also given by the chairman.

NATIONAL CHRYSANTHEMUM SOCIETY.

ONE of the best shows of early autumn Chrysanthemums in the annals of the National Chrysanthemum Society was held at the Crystal Palace on October 2 and 3. The fine weather of late September favoured the development of early blooms, and was in a great measure responsible for the admirable display seen on this occasion. Competition in nearly all classes was very keen, and in point of colour and quality the blooms left little to be desired. One pleasing feature of this exhibition was the presence of three French enthusiasts, namely, Messrs. Clement, Nonin, jun., and Delanone (Paris). A hearty welcome was extended to the three Continental visitors.

COMPETITIVE CLASSES.

In Class 1, for a semi-circular group of Chrysanthemums, arranged on the floor, with suitable foliage, Mr. Frank Brazier, Caterham, was the only exhibitor with a very attractive group edged with dwarf plants of the golden

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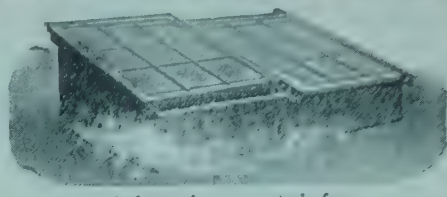
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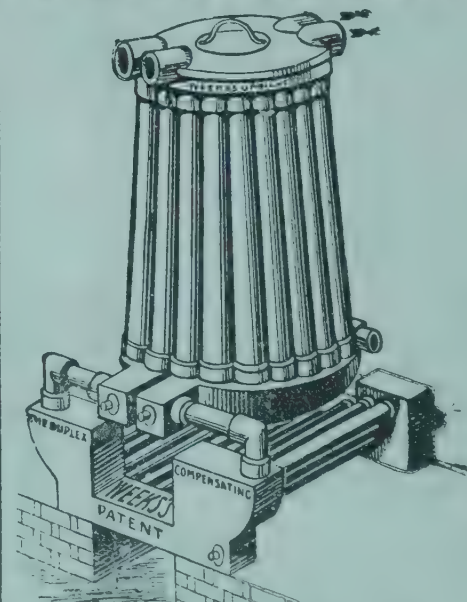
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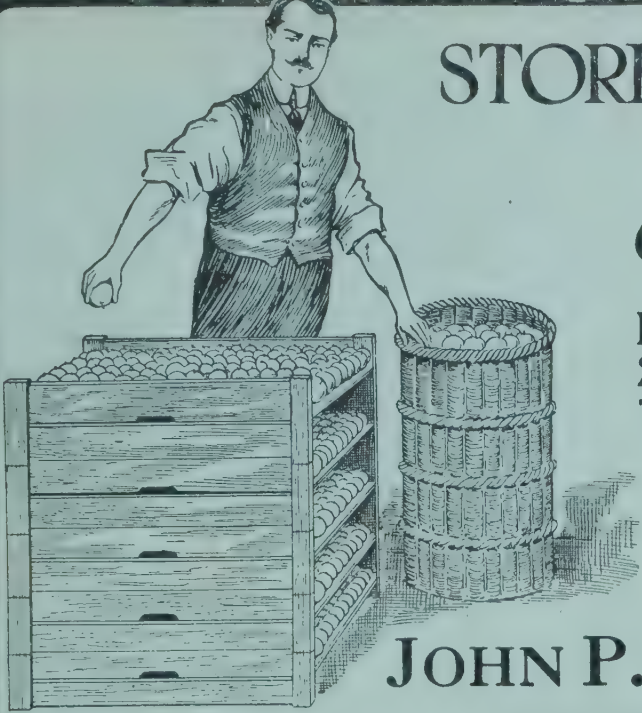
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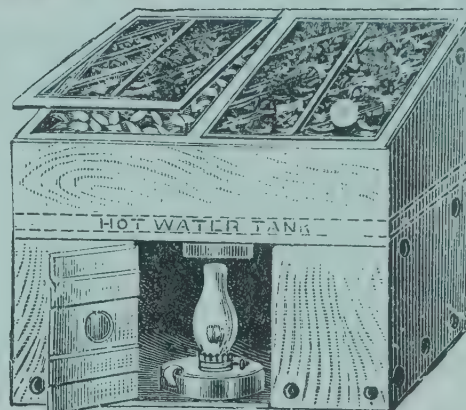
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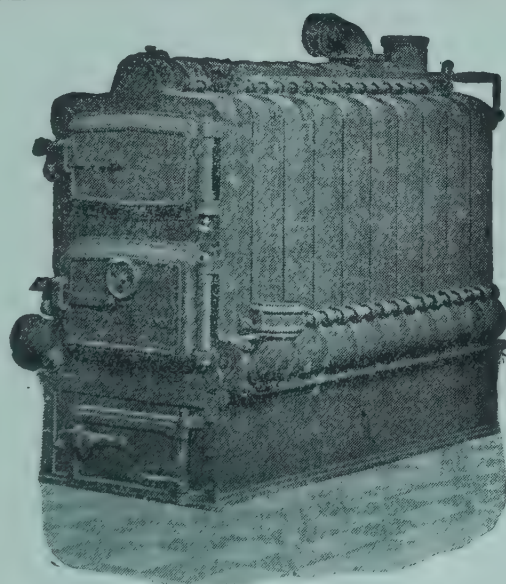
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yellow Mrs. A. Thomson less than a foot in height and profusely flowered.

The large show Japanese blooms were remarkably good for early October, and competition was keen. Mr. G. L. Wigg, Rockshaw, Merstham (gardener, Mr. M. Sargent), was first for twelve blooms of Japanese, distinct, showing Eclipse, White Queen, Mrs. R. Luxford, Marie Looms, Mrs. L. Thorn, President Viger, Mrs. A. Miller, Master James, Mrs. C. H. Totty, Reginald Vallis, Jas. Lock and Beecham Keeling. Mr. E. G. Mocatta, Woburn Place, Addlestone (gardener, Mr. T. Stevenson), was a good second, the blooms shown being remarkably fresh and well finished; third, Mr. Martin Silsbury, Shanklin, Isle of Wight.

The first prize for six Japanese blooms was won by Mr. A. T. Miller, Leatherhead (gardener, Mr. G. Mileham), with six grand blooms, including a perfect specimen of Mrs. A. T. Miller.

The classes for large bunches of Chrysanthemums shown in vases were well filled, and many of the leading growers were brought into friendly rivalry. Mr. G. Bowness, Busby, near Glasgow, led for twelve bunches grown in the open with magnificent vases of Elstob Yellow, Hector and F. S. Richmond, among others. Mr. J. Emberson, Walthamstow, was first in a similar class for twelve bunches of disbudded blooms, and was further successful in securing the first prize for six bunches of early-flowering Chrysanthemums, and again for a vase of early-flowering singles with the pretty rose pink variety Kitty Riches.

The class for three epergnes was well contested, and many beautiful colour-effects were to be seen. Mr. T. W. Stevens of Sydenham was a capital first with a study in bronze and yellow colouring, followed by a dainty exhibit arranged by Mrs. A. Robinson of Carshalton.

The amateurs' class for six bunches of early-flowering Japanese Chrysanthemums was won by Mr. H. Dunkley, Kettering, with six first-rate vases.

The open class for a vase of three Japanese blooms brought keen competition from all parts of the British Isles, the first prize being won by the Rev. T. Sheepshanks, Chudleigh, South Devon (gardener, Mr. A. Dunkley), with a grand vase of the variety Frances Jolliffe; and Mr. F. Brazier, Caterham, was first for a vase of early-flowering singles with the variety Miss E. Finch in keen competition.

The decorated tables and baskets formed one of the most pleasing features of this exhibition. Mr. A. W. Trossell, Beckenham, was first for a decorative dinner-table with a charming study in yellow and bronze Chrysanthemums, with Maidenhair and Asparagus Ferns and bronze-tinted foliage. Mrs. A. Robinson, Carshalton, was a creditable second. There were no fewer than eleven decorated tables, and the combined effect was pleasing in the extreme.

A similar class for a decorated table was won by Miss A. Bashford, Carshalton, with yellow and bronze blooms, the table being trailed with autumn-tinted Ampelopsis.

AWARDS TO GROUPS.

Gold Medals.—Messrs. W. Wells and Co., Limited, Merstham, Surrey, for a magnificent collection of decorative, single and Japanese Chrysanthemums, very beautifully arranged with Scarlet Oak and other foliage; Messrs. H. J. Jones, Limited, Lewisham, for a comprehensive group, including their fine novelty Bob Pulling, a new yellow Japanese; Mr. Norman Davis, Framfield, Sussex, for a beautiful exhibit of Chrysanthemums of all sections staged in a masterful way and with consummate taste; and Mr. J. A. Nix, Tilgate, Crawley, Sussex, for a magnificent collection of fruit, comprising Apples, Pears and Grapes, very beautifully arranged.

Small Gold Medals.—Messrs. David Russell and Son, Essex Nurseries, Brentwood, for a collection of ornamental shrubs and fruit; and Messrs. H. B. May and Sons, Upper Edmonton, for a collection of Ferns.

Silver-gilt Medals.—Messrs. T. S. Ware, Limited, Feltham, for a bright and extensive collection of Dahlias and perennial Asters; Messrs. James Carter and Co., Raynes Park, S.W., for a well-arranged exhibit of Dahlias and perennial and China Asters; and Mr. J. B. Riding, Chingford, for an excellent collection of Dahlias in all sections. The Anemone-flowered, Collarette and Pæony-flowered varieties were specially good.

Large Silver Medal.—Messrs. Cragg, Harrison and Cragg, Heston, Middlesex, for a showy assortment of decorative and Japanese blooms, chiefly novelties.

Small Silver Medals.—Messrs. A. H. Cole, Limited, Camberwell New Road, S.E., for market Chrysanthemums; and Mr. F. Brazier, Caterham, for perennial Asters.

THE EDITOR'S TABLE.

Polyanthuses from North Wales.—Mr. W. A. Watts, Bronwyf, St. Asaph, North Wales, sends a large bunch of Polyanthuses, which are very welcome at this season. He writes: "I send you a bunch of my yellow Polyanthuses, Bronwyf strain. The plants are in full bloom. It looks strange to see the beds thus in October, but the plants often bloom through the winter in open weather, especially the blue ones."

The Forthcoming Ghent Exhibition.—We understand that arrangements are already in hand for the holding of the Ghent Quinquennial Exhibition next year. A permanent building, one-third larger than our own Crystal Palace, will be provided, and the show will last for several months.

Already 1,400 firms have undertaken to keep up a continuous supply of flowers over this period. Azaleas and Orchids are to be the principal features. The British Representative's office is at 1, Southampton Row, London, W.C.

"Country Life" for October 12 contains, among other articles, an illustrated account of "Burton Manor"; "Tales of Country Life: Lot 61," by Elizabeth Kirk; "Rusks, Dumplings, Puddings and Pies," by F. M. Robinson; "Evolution of Fancy Cats" (illustrated), by F. E. Frowde; "American Foxhounds for British Hunting" (illustrated), by H. A. Bryden; "My Wood Fires and Their Story" (illustrated), by W. Robinson; "The Buckinghamshire Inventory."

TRADE NOTE.

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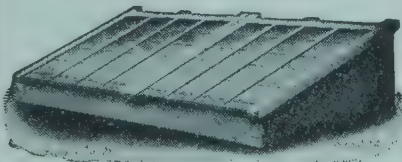
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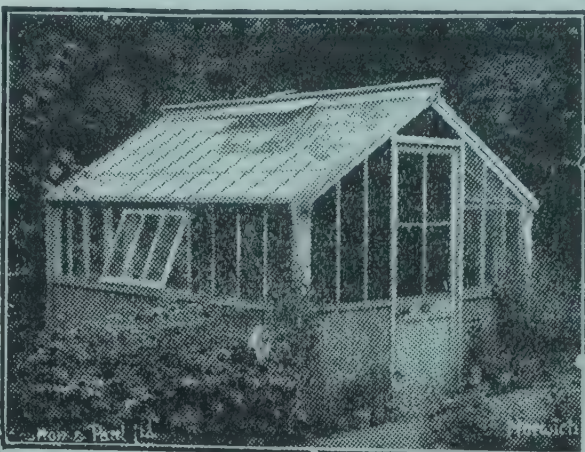
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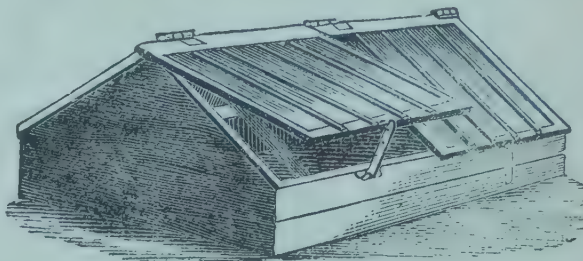
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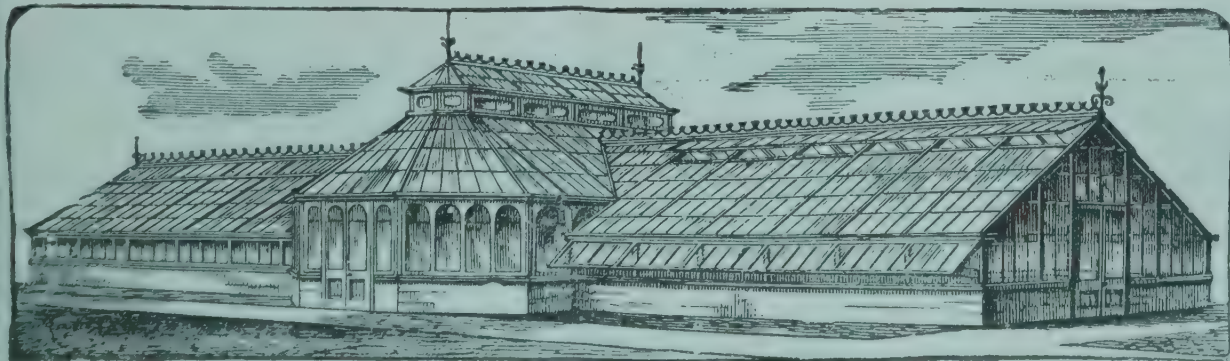
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ORCHARD AND WOODLAND

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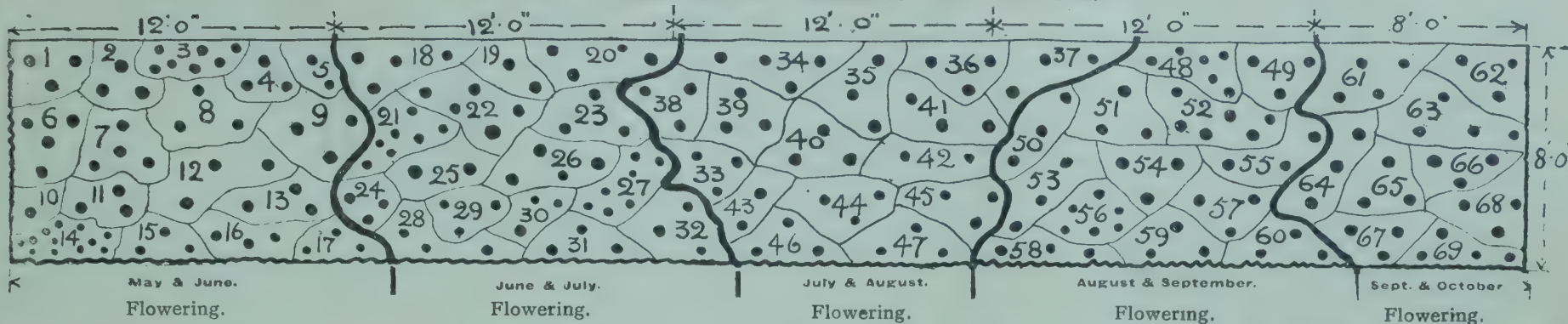
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100 Double Daffs. ...	4 0	12 Iris, English, to	
100 Dbl. White Narcis. ...	2 6	name, for ...	1 6
100 Pheasant-eyes ...	2 6	100 Anemones, Scarlet... 4 6	
100 Frank Miles ...	1 6	100 Anemones, The Bride 1 9	
		100 Anemones, St. Brigid 5 0	
TULIPS.		100 Scilla Siberica ... 3 0	
100 La Reine ...	3 0	100 Freesia ... 3 0	
100 Cottage Maid ...	3 0	100 Summer Snowflakes 5 0	
100 Chrysolora ...	3 0	12 Lilium candidum ... 2 6	
100 D. de Parma ...	3 0	12 L. Crown Imperial... 2 0	
100 Keizerkroon ...	4 0	12 L. Auratums ... 7 6	
100 Golden Crown ...	3 0	12 L. Croceums ... 4 0	
100 Picotee ...	4 0	12 L. Longiflorums ... 4 0	
100 Bouton d'Or ...	3 0	100 Snowdrops ... 1 6	
100 Prince de Ligny ...	4 0	100 Ixias, to colours ... 2 6	
100 Duc Van Thol., Sgl. ...	4 0	100 Crocus, in colours ... 1 3	
100 Duc Van Thol., Dbl. ...	3 0	100 Lilly of the Valley... 2 6	
100 King of Yellows ...	4 0	100 Jonquils ... 4 6	
100 Mixed Tulips ...	1 1	100 Ranunculus... 3 0	
100 Mixed Darwins ...	4 0	100 Montbretia ... 3 0	
100 Darwins to name ...	10 6	100 Aconites ... 3 0	
100 Parrot Tulips to		100 Chionodoxa... 2 6	
colour ...	2 6	100 Polyanthus Narcis... 3 0	
		100 Alliums ... 3 0	
12 Begonias, choice ...	1 6	12 Christmas Roses ... 4 0	
12 Violets, in sorts ...	1 6		

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THE GARDEN.

No. 2135.—VOL. LXXVI.

OCTOBER 19, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

*The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

A Beautiful Rock Garden Sedum.—One of the most beautiful plants in the rock garden just now is *Sedum spurium splendens*. Its dwarf, spreading habit is admirably adapted for draping a large boulder, while its brilliant, almost carmine flower-trusses are very freely produced. Plants such as this, which flower at a time when the rock garden is all too dull, are particularly useful.

The "Temple" Show.—We understand on good authority that the spring show of the Royal Horticultural Society, which has for many years been held in the gardens of the Inner Temple, will next year be held in the Royal Hospital Grounds, Chelsea, where the great International Exhibition was held this year. For some years past the Temple Show has been much overcrowded, and the site at Chelsea will afford better scope for exhibitors to display their skill and allow visitors to see the show in comfort.

Some Interesting Cape Heaths.—At the meeting of the Royal Horticultural Society held on the 8th inst., considerable interest was manifested in a collection of Cape Heaths shown by Lady Grey. These were all cut sprays which had been shown at an exhibition of wild flowers held at Caledon, Cape Colony, on September 14, and were brought direct from there by Lady Grey. Several of the species were unknown to growers present at the meeting. At one time Cape Heaths were cultivated very largely in this country, but now well-grown examples are seldom met with.

Good Late-flowering Roses.—Although from 6° to 8° of frost had been registered for several mornings, and heavy fogs had existed for nearly a fortnight, the following Roses were blooming freely on the 14th inst. in an Essex garden: Grüss an Teplitz, Gloire de Dijon, Frau Karl Druschki, Zephyrine Drouhin, Duchess of Wellington, Jas. Coey, Mrs. A. Munt, Konigin Carola, Margaret, Mme. Jules Gravereaux, Lady Alice Stanley, Mrs. Alfred Tate, La France de '98, Betty, Gustave Regis, Longworth Rambler, Margaret Molyneux, General Macarthur, Amateur Teyssier and Jessie. All had really good, well-coloured blooms. Jessie has never been out of flower since the first week in July, and every young growth is covered with buds.

Stone Edgings to Flower Borders.—When visiting the gardens at Aldenham House, Elstree, a few weeks ago, we were interested to find that the flower borders which skirt the paths in the kitchen garden were edged with rough sandstone. This has taken the place of the grass edging that used to be there. The irregularly-shaped pieces of sandstone have been let into the soil, so that they are about six inches above the level of the pathway and form an edging some eighteen inches in width. Among the stores a number of the stronger-growing

alpines are planted, and the effect is most pleasing. The taller herbaceous plants are set well back, so that they do not overhang the alpine plants. In those gardens where a rock garden proper cannot be accommodated, a suitable home for a great many alpine plants could be constructed on the lines suggested.

Crocus pulchellus.—One of the most beautiful, although not the most showy, of the true Crocuses of autumn is *C. pulchellus*, which came into flower some days before September had run its course. It has delightful small flowers of a kind of pearl blue, though varying considerably in the precise tint. It succeeds well in the border close to the front, but its real place is in the grass or in a rock garden. It looks well in either of these positions, although it is less liable to injury on the rockery than anywhere else. *C. pulchellus* is quite hardy, and is an inexpensive bulb to purchase.

The British Fruit Show.—It is gratifying to know that in a year such as the present, when climatic conditions have been far from favourable, fruit-growers in this country are able to produce such magnificent examples of Apples, Pears, Grapes and other fruits as those staged at Vincent Square on Thursday and Friday of last week. The Royal Horticultural Society is doing good work in bringing exhibits of home-grown fruits before the public, but we think even more might be done in encouraging the grading and marketing of Apples. A detailed report of the show will be found on another page.

Campanula Hillside Gem.—There would appear to be a good deal of the *C. Hendersonii* blood in this plant, and despite its distinct habit, taller growth and differently-coloured flowers, among other things, the plant might well be compared to an improved *C. Hendersonii*. It would appear more generally amenable to cultivation than the last-named, while its profuse flowering—July to October—should render it welcome to all. Even now in the early days of October it is giving quite a passable display, and is one of the very few of its genus now in bloom. Eighteen inches or 20 inches high, the plants need no support, and an established clump is very showy.

A Brilliant Autumn Flower (Zauschneria californica).—For autumn flowering this is one of the most brilliantly-coloured flowers in the hardy plant garden, one worthy of appearing here and there in varied aspects so that a continued flowering may result. Not a lover of over-rich soils, it is a moot question whether some of the more brilliant effects of which the plant is capable are not the result of wall planting, that type of it more particularly where the roots may descend deeply in rubble and soil and still find a congenial home for years. A like result may be secured in the larger rock garden, where crag and crevice having been studiously made, the plants have also been equally studiously planted.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

"A Visit to Some Irish Rose Gardens."—In THE GARDEN for October 12, page 513, column 1, line 23, for "Colleen" read "Coronation." The latter, a seedling of Messrs. Hugh Dickson, Limited, is the Rose referred to.—J. H. PEMBERTON.

Rose Alberic Barbier.—As an almost continuous bloomer among the wichuraiana Roses, Alberic Barbier seems to bear the palm, and this season it has been in flower for many months and is still flowering away in the beginning of October here in the South of Scotland. It is very fine on a pillar with its creamy white, yellow-shaded flowers.—SUB ROSA.

The Loquat Fruiting in the Open.—In the gardens of E. A. Owgrom, Esq., of Culver, about five miles from Exeter, a Loquat tree (*Eriobotrya japonica*) has, growing under a south wall, borne

Rose Irish Fireflame.—A note by "Danecroft" in your issue of October 5, page 499, attracts my attention, and with your permission I should like to correct the slight error that occurs therein in the name of this Rose; and it is perhaps all the more important that it should be done early, as there is already another Rose in commerce bearing the name of Flame. Messrs. Alex. Dickson and Sons' latest single is called Irish Fireflame, and not Irish Flame. The error, I think, crept in at the Southampton Show, where this beautiful Rose made its first appearance. It was unanimously awarded the gold medal of the National Rose Society, and proved the sensation of the show. I have Mr. George Dickson's authority for stating that the correct name is Irish Fireflame—Fireflame by name and fire flame by nature. Beautiful as Irish Elegance is, and entitled as it has been to be called the most beautiful of all single Roses, the new-comer, in my estimation, will eclipse it. It is dazzling in its brilliancy, gorgeous in its colour-scheme—that is not a pretty word, but I can think

of bone-meal and half-inch bones being added at planting-time. Just before the buds showed colour a dressing of Bentley's Rose Manure was hoed in, using a Sproughton hoe, a very necessary implement in successful Rose-growing. Sunburst is undoubtedly one of the "great" Roses.—E. E. F.

—Your correspondent Mr. Cook, page 499, issue October 5, advises disbudding and retaining side buds, and so avoid poorly-coloured blooms; but my experience is that the flowers are borne singly on stout stems. I understand that for early forcing under glass this Rose is a failure, and I believe time will show that it is as fickle in colour as W. A. Richardson. Lately I have seen a great number of blooms come pure blush. I am looking forward to your able correspondent Mr. Molyneux in his "Notes on Newer Roses" to say what we may expect of this beautiful Rose.—WEST WORTHING.

Flower Shows and the Judges.—It has long been a matter of surprise to me that while in practically all competitions the names of the judges, umpires, referees, examiners, or whatever title they are known by are publicly announced, the reverse holds good in the majority of flower shows, for it is in their case quite the exception to learn the names of the judges. In the report of the large provincial shows, at which heavy prizes are given, one frequently reads of the points allotted to different exhibits by the judges, but never a word as to the identity of those chosen to adjudicate on the merits of the various subjects. It would, I am sure, be to many as interesting to know the names of the judges as it is to learn other particulars connected with the show. Our own Royal Horticultural Society and the Manchester and North of England Orchid Society publish the names of the members of the different committees who are present at each meeting, hence one may readily learn who has adjudicated upon any particular exhibit; but in the case of most shows the identity of the judges is not disclosed, at least to the general public.—H. P.

Judging New Roses.—Your correspondent Mr. W. Easlea makes an admirable suggestion in his article on "Judging New Roses," page 517, issue October 12, viz., that the National Rose Society should have a trial ground of its own, to which all members should have access. I feel sure it would answer in every way if it were tried, and that it would not be a financial strain on the society, as no doubt it would be the means of increasing the membership considerably. It would be a great boon to be able to judge for one's self the various habits of growth of new Roses. Most people have not the time to rush about all over the kingdom to various nurseries to inspect them, and it is impossible to form any idea of the quality of plants from the descriptions in the catalogues, as the raisers naturally "boom" their own productions. Furthermore, I would suggest that novelties should be sent to the new trial ground, and that the raisers should not be allowed to enter them for a gold medal for two or three years until their qualities have been thoroughly tested and approved by the judges of the National Rose Society. Most of us want good garden Roses for bedding. I do not suppose 90 per cent. of the members of the society care twopence about the "exhibition" qualities of the flowers, so that anything that can be done to encourage the raising of good garden Roses would be cordially welcome, and the first step in this direction would be to allow members of the society to judge for themselves of the individual merits of each novelty.—L. B., Surrey.



AN INTERESTING DISH OF THE WATER LEMON (*PASSIFLORA LAURIFOLIA*), SHOWN LAST WEEK BY MR. JAMES VERT OF AUDLEY END GARDENS, SAFFRON WALDEN, AT THE EXHIBITION OF BRITISH-GROWN FRUIT.

several branches with fine ripe fruits on them. It is rather rare for the Loquat to ripen its fruits in the open in this country, but Culver is a much-favoured spot in a climatically-favoured county.—ROBERT VEITCH AND SON.

Albino Forms of Geranium robertianum.—I was interested in reading the second paragraph in the second column of THE GARDEN for October 12, for only six weeks ago, when at Droitwich, my old College friend, Frederick Baynes (who in 1870 had "tubbed" me for the first Lady Margaret Boat, St. John's, Cambridge, then second on the river, and Goldie at the stroke oar), sent his motor to bring me to his house at Summerhill, Kidderminster, and there in his old-fashioned garden I saw under the trees in the shrubbery the albino *Geranium robertianum* flowering freely in a comparatively wild state.—P. CLEMENTI-SMITH.

—An albino form of *Geranium robertianum* is to be found in the district between Southampton Water and Beaulieu. It is quite wild, and, I believe, established there.—C. AGNES ROOPER.

of no other that so fittingly describes this gem among Roses. Unfortunately, Messrs. Dickson do not hold a large enough stock to enable them to send it out this year, but they hope to put it on the market in 1913.—HERBERT E. MOLYNEUX, Southampton.

Rose Sunburst.—"G. T. W.," page 474, issue September 21, has been unfortunate in his experience of this variety. If he will pinch off the first buds as soon as they are formed, he will then have blooms of the intense apricot and orange shade so attractive. My plants have been superb, having freedom of growth and perfect blooms of the desired colour. If "G. T. W." will give it another trial, I am sure he will be pleased. I have known Sunburst for some time, and have not the slightest hesitation in saying it is the finest of its colour ever sent out by M. Pernet-Ducher, superb and useful for any purpose, and very fine under glass. The ground in which Sunburst has done so well was deeply trenched and enriched with good farmyard manure and basic slag, a mixture

A First-prize Basket of Flowers.—I am enclosing a photograph I have taken of a basket of flowers arranged by my daughter, Miss M. H. Ledgard, which won the first prize at Thorner Flower Show on August 14.—**ARMITAGE LEDGARD, The Manor House, Thorner, Yorks.**

Collarette Dahlia Queen Mary.—This is one of the finest of the new Collarette Dahlias, and a set of such beauty of colour and form as this would do much to popularise the Collarette varieties. It is one of the varieties which blooms freely and throws up its flowers well, instead of hiding them, as is too often the case with this type of Dahlia. The blooms are of a fine shade of bright rose, with a white disc and prettily tipped with white. The collar is a pleasing blush, the whole flower having a very beautiful effect. It has been honoured with awards, but its merit of a good habit is not so well known as it should be.—**A. M. D.**

Buddleia asiatica in Scotland.—This handsome Buddleia is highly appreciated in the gardens of Drumlanrig Castle, where it is cultivated on the walls of a temperate house. It is very handsome with its pleasing whitish foliage and its racemes of white flowers. It is but seldom seen, and it is an interesting question whether it may not prove hardy in the milder parts of the country. Should it do so, it would be an excellent companion to *B. variabilis* and *B. Colvillei*. It is said in some books to reach to only 3 feet high, but at Drumlanrig on a wall it is 10 feet or 12 feet in height against the back wall of a lean-to house. Mr. Inglis grows it well.—**VISITOR.**

Choisya ternata.—I notice with pleasure the increasing interest of garden-lovers in that beautiful shrub, *Choisya ternata*. I have grown it now for over ten years. For some reason or other best known to itself, it took over two years before it flowered properly, but now and for some years past it has never failed. I find it perfectly hardy in every situation. It has gone through 30° of frost practically without showing any signs of discomfort beyond getting the tips of its leaves pinched. I have it planted in clumps and isolated bushes and as hedges, and everywhere it responds to whatever attention it gets. It does not seem to be at all particular as to soil, but it flowers better on a south border. Cuttings on a north border began to flower at a very early age. I do not think I have had a single failure in rooting it. I root cuttings regularly every year, and I find that it is a most acceptable present to my gardening friends when I present them with a well-grown bush of my own striking. I do not know whether it had reached England in Keat's time, but I believe he must have meant the *Choisya* when he wrote "A thing of beauty is a joy for ever."—**GUY CAMPBELL, Thames Ditton.**

FORTHCOMING EVENTS.

October 21.—National Chrysanthemum Society's Executive and Floral Committee's Meeting.

October 22.—Royal Horticultural Society's Meeting and Exhibition. Lecture at 3 p.m. by the Rev. Professor G. Henslow, V.M.H., on "The Senses of Plants."

October 23.—Herefordshire Fruit, Root and Chrysanthemum Show (two days). Croydon Chrysanthemum Show (two days).

TREES AND SHRUBS.

THE CARE OF OLD TREES.

IF we are to judge from the neglected appearance of old trees in many gardens, the fact that a little timely attention would, in many cases, prolong their lives for an indefinite period does not appear to be generally recognised. Yet in some instances the preservation of such trees is absolutely necessary to maintain the privacy and charm of the garden, for their death may let in views of ugly buildings and other objectionable features. There are favourite trees, too, which people would regret to lose, whose lives might have many years added to them were they only taken in hand in time.

As a rule, injury to branch, trunk or root is the initial cause of decay. By these injuries spores

by some fungus disease, there is little chance of saving the tree. Sometimes, however, a decayed section of trunk may be noticed near the ground-line, which, if dealt with at once, may hold the disease in check. In such cases the bark should be cut away, together with any rotten wood, until living bark and wood is reached. Should the disease extend below ground, remove the soil and cut away any dead wood found about the base of the trunk or roots. The wounds must then be painted over with a strong carbolic acid solution, and, when dry, with coal-tar. Two coats of the latter may be necessary. Such wounds are often due to very slight injuries in the first place, such as a blow from a mowing-machine, a sharp knock with some heavy instrument, frost-bite or sun-stroke, which, if attended to at once, would go no further. In the case of injured bark, it is always a good thing to cut the injured part away and paint the wound at once with coal-tar. Another fertile source of injury is the piling of soil, short grass or other material about the trunks. Sooner or later such a habit leads to disaster, and the most satisfactory trees are always those whose upper roots are quite close to the surface of the ground, which may be seen by the junction of trunk and roots rising clear of the ground. Root injury also occurs after the ground has been badly waterlogged. On heavy, low-lying ground this condition may sometimes be noted after an unusually wet winter, or after a stream has overflowed its banks. Unfortunately, the injury is so far advanced before it can be detected that there is little hope of saving the trees. All that can be done is to open drains round about them, and if the ground is covered with grass, remove the turf and fork the ground over lightly to let in as much air as possible. A long spell of drought may also have a bad effect on trees, especially old ones growing in rather poor soil. Fortunately, such cases are fairly easy to deal with, for short growth and flabby leafage usually indicate weakness and a shortage of water, and the necessary steps can be taken in time to prevent the death of the trees. In such cases the turf must be removed from beneath the branches to the full radius of the branch system, the ground afterwards being lightly forked over and thoroughly watered, finishing the work with a surface-dressing, 6 inches deep, of well-rotted manure and leaves.

Trees treated in this manner show a remarkable access of vigour the following year. Impoverished soil may also result in the weakened health of large trees. In the case of surface-rooting trees a layer of good soil and well-rotted manure may be applied as a surface-dressing after lightly forking the ground, taking care to carry the new soil to the outermost parts of the branches, for it must be remembered that the best feeding roots are found thereabouts. Deep-rooting trees and surface rooters also may be improved by opening a trench about the outer parts of the branches and forking the soil back towards the trees until fibrous roots are met with, then filling the trench with good soil.

Damaged Branches.—This may arise from a variety of causes. Damage by wind is one of the most common, for after a large limb has been blown away, the head of a tree is seriously weakened, and, if nothing is done, more branches follow.



FIRST-PRIZE BASKET OF FLOWERS SHOWN BY MISS LEDGARD AT A YORKSHIRE SHOW.

of various kinds of fungus find an entrance. The spread of disease is often facilitated by the age and general weakening of the health of the trees, and decay goes on unchecked until the owners suddenly observe that a tree is either unsafe or a large portion of it is dying. Branches broken by storms are a fertile source of permanent injury if attention is not paid to them at once, while injury caused to the surface of exposed roots by cart wheels, wheelbarrows and other things frequently account for the commencement of root trouble. There are, however, many instances where trees have become seriously damaged, but still retain a fair amount of vigour, which may be rejuvenated if they are only given the necessary attention, and the following notes are directed to a few methods of procedure.

Root Trouble.—This is the most difficult fault to deal with, and if the roots are badly attacked

To check this two courses of action are open. One is to reduce the weight of the remaining branches by removing a good-sized part of each, and the other is to link the branches to each other for mutual support. The latter may be done by placing iron collars round each branch and fastening them together with chains. Better still, however, is the method of boring a hole through each branch, inserting an iron bar between each two, and screwing it up tight at each end with nuts, iron plates 4 inches square being placed between the nuts and the bark. Dead tops of branches often occur also. Trees in this state are said to be "stag-headed," and they are very unsightly among other trees. They may be improved by cutting the dead parts out well below the place where the dead wood ends, taking care to tar all the wounds so made. While performing the work care must be taken to retain the natural outline of the tree, even if it means cutting away a branch or two which are apparently healthy. After a good topping such trees as Oaks, Elms, Poplars and Chestnuts often become quite healthy again, and last in good condition for many years.

Injury to Tree Trunks. —

Diseased areas on the trunks of trees may often be traced to branch injury in the first place. Branches may be blown out and the wounded places left unattended, or pruning may be improperly done and snags left behind, which in time decay and communicate disease to the trunk and eventually to the heart of the tree. It is not an uncommon question to be asked, "What can be done for trees with large or small holes in the trunk?" Providing the branch system is generally healthy, it is possible to patch up such a trunk in a manner that will prolong the life of the tree for many years. The first thing to do is to cut away as much dead wood as possible, then paint the bare surface with a solution of carbolic acid, afterwards applying a coat of tar. When this has had time to dry, the hollow or hollows must be built up with cement and bricks. A facing of cement must then be given to make the surface level with the surrounding bark, and this when dry may either be coated with tar or be coloured like the bark. Some people

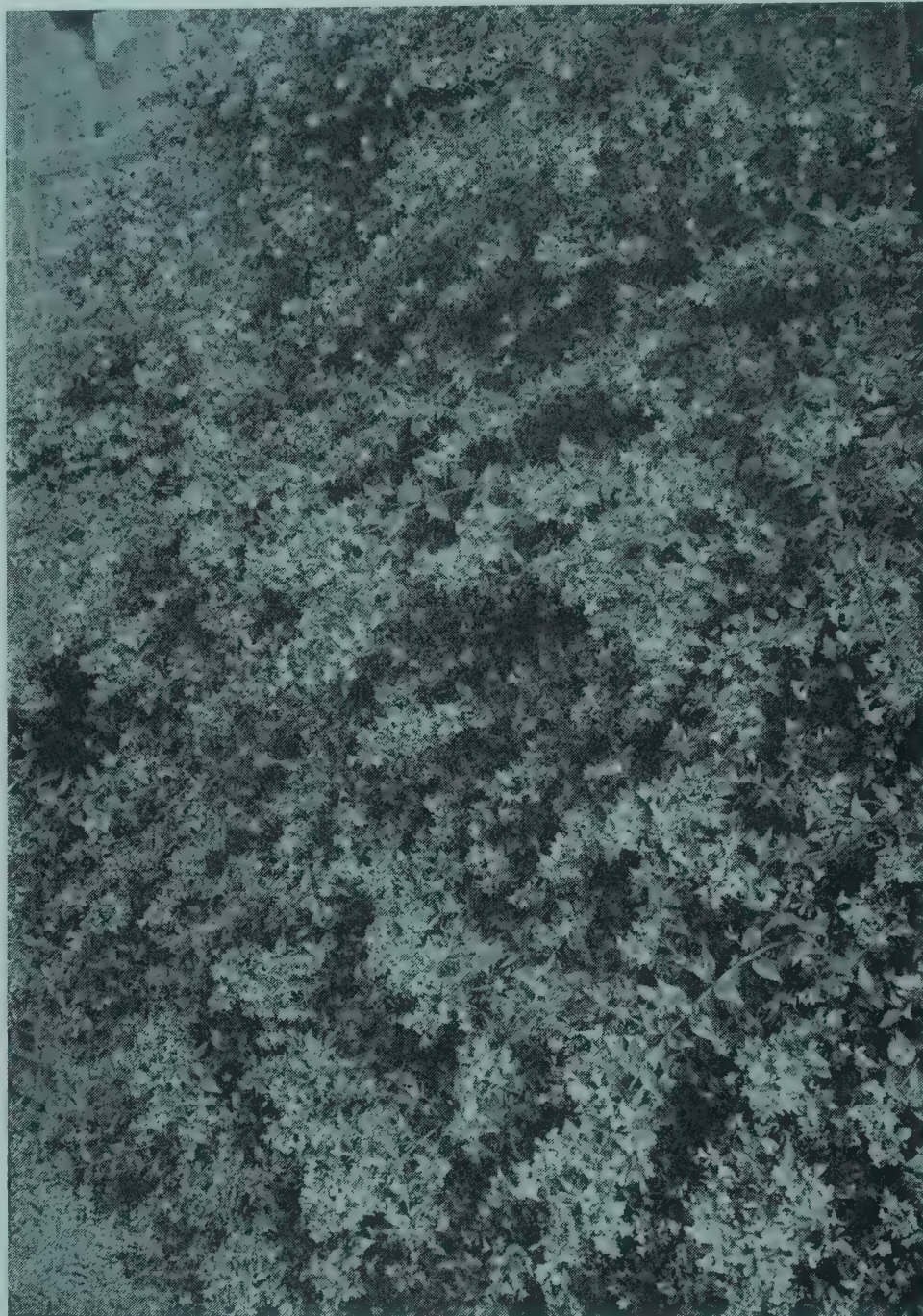
cover such wounds with zinc or lead, but it is a bad practice, for dirt and damp get beneath the covering and in time create more decay. Dead branches must always be removed quite close to the trunk, and the wounds so made be tarred over. There is really no special time for doing this class of work, but when living branches have to be removed, the best time is between June and Christmas. As a rule, it will be found a good plan to go round all important trees at least once a year and attend to any necessary pruning or touching up. Once the pruning is properly done, a little attention keeps the trees in good order.

W. D.

A FREE-FLOWERING WALL SHRUB.

(ABELIA GRANDIFLORA.)

As a wall shrub for early autumn effect there are few subjects to equal *Abelia grandiflora*. This *Abelia* produces a veritable shower of rosy white flowers at a time when the glory of most other flowering shrubs has departed. *Abelias* are not very extensively grown in the open. Only three species, viz., *A. rupestris*, *A. uniflora* and *A. floribunda*, appear to be known in the gardens of this country. *A. grandiflora* is a seedling of Italian origin, and is regarded as a form of *A. rupestris*. The flowers are considerably larger



ABELIA GRANDIFLORA, A BEAUTIFUL LATE AUTUMN-FLOWERING SHRUB FOR A SOUTH WALL.

than those of the type, and the whole plant is of more robust habit. When grown outdoors it requires a warm position; a wall facing south seems to suit it best. Although not fastidious as to soil, *Abelias* may almost be classed as peat-loving plants; a mixture of loam and peat in about equal parts will make the most suitable compost. In mild districts, such as the southern parts of England and in Ireland, *Abelias* are known to do remarkably well in open situations; but in northern and inland counties their culture should only be attempted where a south wall is at command.

THE HEATH GARDEN.

THE LING AND ITS VARIETIES.

THE Ling, or *Calluna vulgaris*, is so closely allied to the Heaths that many people make no distinction between the two genera. A careful examination, however, reveals the fact that there is a very different leaf arrangement, in addition to other botanical differences. In *Erica* the leaves are usually arranged rather loosely in whorls, while those of *Calluna* are closely packed together and disposed in such a manner as to give the stems a four-angled appearance.

There is only one species of *Calluna*, but it is prolific in varieties, which differ so widely from each other and from the type that, given a selection of the best, a varied and interesting feature can be produced. As is the case with most other shrubs which belong to the Heath family, the various varieties of *Calluna* are impatient of lime; therefore they ought not to be planted in places where lime is present in the soil to any appreciable extent. They thrive excellently in peat, although it is not essential to their well-being, for very good results can be obtained by planting in sandy loam. Propagation may be effected by means of cuttings or layers. The former is the better way, for the young plants are usually more vigorous than those raised from layers. The cuttings should be made from small side shoots during August or September, and be inserted in pots of sandy peat placed in a close frame, or in a bed of sandy peat under a hand-light.

When the different varieties are used singly to form masses or groups, they are very effective, but they make a charming picture also when the various kinds are mixed. A mixture of the better kinds was noticed a few years ago in the nursery of Messrs. James Smith and Sons at Darley Dale, and I was informed that quite a number of customers had been so pleased with it that they had repeated it in their own gardens.

The variable nature of the plant may be noticed sometimes on a wide stretch of moorland where

it forms the principal vegetation, for it is possible to find clumps which differ considerably from the type. Thus in some places the branches may be 2 feet high, while in others they scarcely attain a height of 6 inches. Then, again, it is found in some places growing in dwarf, compact tufts 2 inches or 3 inches high, and in other places it is so dwarf as to resemble a close-grown moss. On the same hillside the colour of the flowers may be found to vary from the familiar light red of the commonest kind to white or dark red. The forms with white flowers are the more popular, and it pays to grow them on purpose for cut sprays.

Of late years a considerable trade has arisen in supplying white Ling, or white Heather as it is more often called, to the markets of various towns in Scotland during August and September. Quite recently an ingenious ruse was noticed in the London suburbs among itinerant flower-sellers with regard to a substitute for white Heather. Seed-bearing plants of a wild *Lepidium* had been collected and sprinkled with whitewash. From a superficial glance these bore a resemblance to Heather, and people were induced to part with their pennies quite readily. The branches of the Ling are sometimes used for thatching, especially for summer-houses and fruit-rooms. They are also used occasionally for litter for horses, and the young shoots are greedily eaten by grouse.

Of the many kinds in cultivation, the following may be accepted as a good selection: *Alba*, *alba rigida*, *alba Serlei* and *Hammondii*, strong-growing, white-flowered varieties; *alba minor* and *alba pumila*, dwarf-growing, white-flowered varieties; *Alportii* and *rubra*, strong-growing, red-flowered; *rosea*, rose-coloured; *flore pleno*, double red; *aurea* and *cuprea*, golden and copper leaved respectively; *Foxii*, *hypnoides*, *minima* and *pygmæa*, dwarf, forming cushion-like masses of greenery, but not free-flowering. D.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.

(Continued from page 519)

HYBRID TEAS.

IF new Hybrid Perpetuals are few and far between, the same cannot be said of the Hybrid Teas. Their number is legion, and the term "Hybrid Tea" is like charity, inasmuch as it covers a multitude of "Roses," most of them undoubtedly Hybrid Teas, but others might with more correctness, I fancy, be placed in other classes. The Hybrid Tea is the fashionable class at the moment, and so a Rose with any pretensions (sometimes, I am afraid, without any) to that term goes into the Hybrid Teas and is allowed to remain there. If it was a matter of serious moment, it would have to receive attention; as it is merely a label, and very often only an expression of opinion, it is not worth while going too deeply into the question, and at that I will leave it; but it is curious how Time has its revenges, for the old rosarian despised the Hybrid Tea class and refused for some time to recognise it. What would he say if he came back, I wonder? The rosarians' year-books make very interesting reading, especially some of the early numbers, and they have much to say on the Hybrid Teas; but that is another story that will keep. Among the newer Roses, the Hybrid Tea is much in evidence, and, dealing with those varieties that may be considered exhibition Roses first, I come to

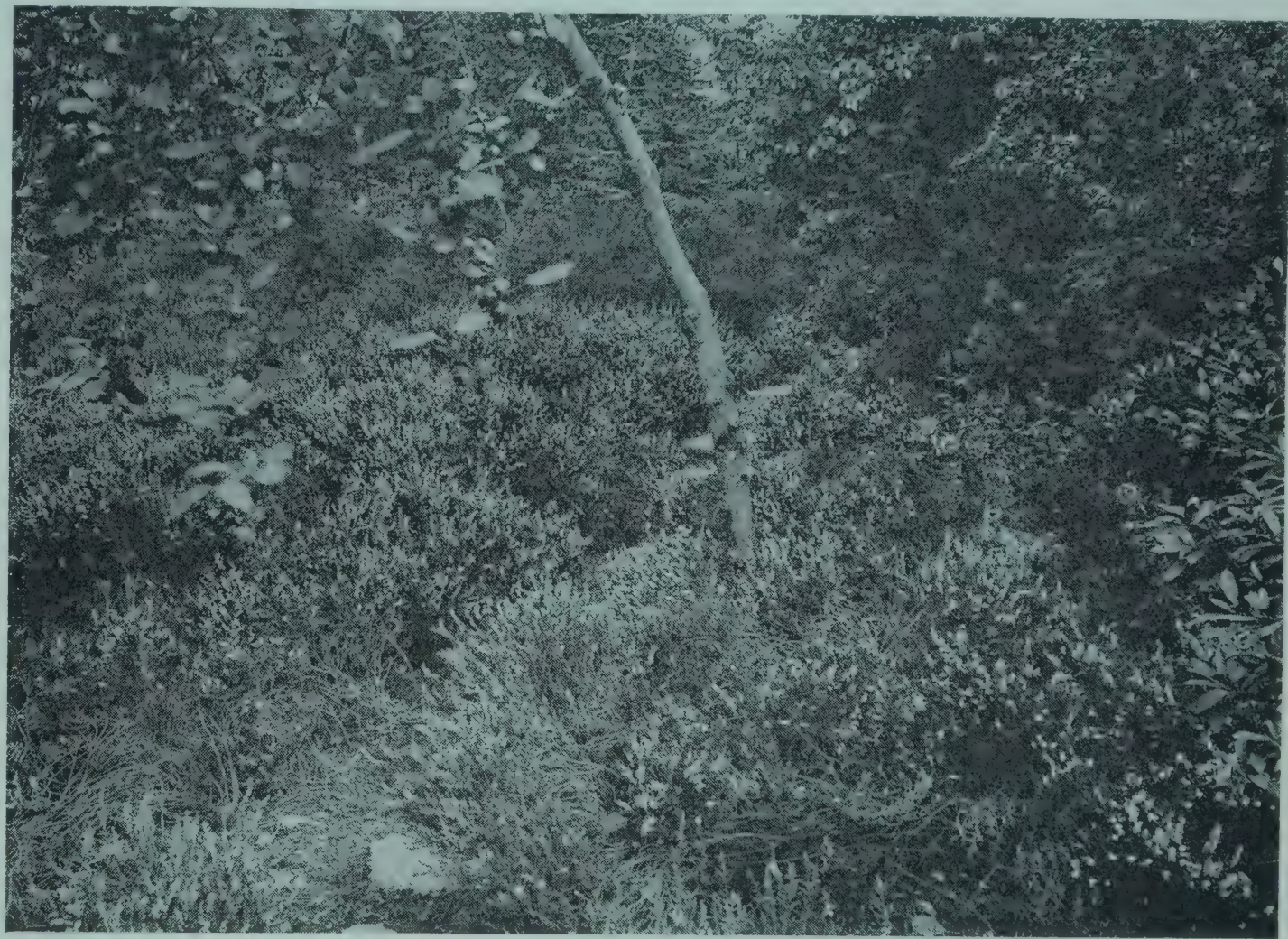
Alice Lemon (Hill and Co., 1911).—This is an American-raised variety. Such plants as I have seen of it have been very promising, and the flowers quite up to exhibition standard. It was (particularly early in the season) frequently exhibited. Messrs. F. Cant had a really good flower of it at the Southampton Show that was at one time in

the running for the best Hybrid Tea, but it had eventually to make way for an extraordinary flower of *St. Helena*, another new Hybrid Tea. It has, of course, not yet had time to get into general cultivation, but I am convinced it is worth a trial and is not likely to disappoint. Its colour is blush white, shading to a deeper centre. The flowers are well formed, seldom come a bad shape, and are of the desirable high-pointed pattern.

Andre Gamon (Pernet-Ducher, 1910).—This is a bright carmine colour, of good shape, but it needs to be shaded, as there are not too many petals. It should be useful in a cool season, and as it is now to be had at normal prices, it might tempt those of our exhibiting friends who like its colour. It is quite a good garden Rose, and in general appearance is not unlike *Mrs. A. E. Coxhead*, but without the fine shape of that variety.

Avoca (A. Dickson and Sons, 1907).—This Rose has done well this year in contradistinction to its

Rose he has yet raised. There is certainly a charm about it that is very taking. I have seen it described as a scented *Frau Karl Druschki*, but there is nothing *Druschki*-like about it. It has a much more refined appearance, and has undoubtedly a lot of Tea blood in its pedigree. The centre of the flower bears a strong resemblance to *Catherine Mermet* at its best, and the outside petals to *La France*. The buds have a slight blush "flush" on them, but this is lost in the open flower, which is a pure white. It was awarded the silver-gilt medal last year, but gained the premier award of the coveted gold medal at the last autumn show of the National Rose Society. (Was that because some of the judges had in the meantime seen it growing at Portadown, I wonder?) It is everybody's Rose, always in flower, standing the sun and the rain and the frost as well as any Rose I know, and its flowers always come good. I know the half-a-dozen rows that were growing at Portadown were hunted up



AUTUMN IN THE HEATH GARDEN. LING AND HEATHER EFFECTIVELY GROUPED.

last year's record, which was poor. It was well shown by trade and amateur alike, a box at the "National" shown by Dr. Pallett being very good, and he also won the medal for the best Hybrid Tea at the same show with a flower of this variety. Its fault is a tendency to make too much wood, so it is only in an early season that we see flowers of it in time for the shows. It is a good crimson-scarlet, and flowers of that colour are always wanted. It received the gold medal of the National Rose Society at the autumn show in 1907. One would call it a rather late-blooming variety, and as such it should be grown by all Southern exhibitors.

British Queen (S. McGredy and Son, 1912).—Ah! Has it come at last, the perfect white Rose? Form, fragrance, free-flowering, fine foliage—all of these are undoubtedly present in this beautiful variety. I believe Mr. McGredy calls it the finest

and down to find a bad flower or a split bloom, and although each plant was searched, it was *non est*, and there must have been thousands of flowers out. There are not many Roses of which this could truthfully be written. Anyone who saw it growing, as those who were fortunate enough to be able to visit the Portadown nurseries after the Belfast Show this year did, could not fail to be impressed with this Rose. That was in mid-July, and I noticed that Mr. W. J. Grant, who visited the nurseries in late September, writing in a contemporary, has formed the same high opinion of its future. It is undoubtedly one of the Roses of the year, useful for all purposes. The half-a-dozen plants that have been growing in my garden have created a sensation among my visitors.

Southampton,

HERBERT E. MOLYNEUX.

THE FLOWER GARDEN.

SIMPLE ARRANGEMENTS FOR SPRING BEDS AND BORDERS.

NOW IS THE TIME TO PLANT.

THE preparation of beds and borders for bulbs has so often been dealt with that it is not necessary to refer to it in detail now. Having prepared the beds, allow a few days to elapse before planting. It is advisable to have a definite idea and colour-scheme, thereby ensuring a pleasing result in the spring. The following arrangement has produced charming effects in both borders and beds, and can be recommended as one of the best results from the smallest possible outlay, and, furthermore, can be used annually with very little additional expenditure. The outside edge of the bed (which may be of any design) will be yellow with the sun-loving Crocuses. These, once planted, should remain undisturbed, as they do not interfere with the planting or growth of summer plants. So long as Crocuses grow and flower well it is a mistake to move them. The corms (or bulbs) should not be put into a hole made by a pointed dibbler, but should be pressed into a fairly solid base of soil and covered to a depth of 2 inches to 3 inches. The corms should be in two or three rows at a distance of 1 inch apart. This allows them ample room to increase year by year.

Following the Crocuses we have a belt of blue in the single dark blue bedding Hyacinths. These should be planted in the same manner as Crocuses, to a depth of 5 inches, but need to be about eight inches apart. Although the Crocuses bloom first, their foliage forms a pleasing surrounding for the rather sparsely-endowed foliaged Hyacinth. We have now advanced 6 inches inwards, and the next three additions, together with that of the centre, will supply the necessary foliage to relieve the dreary barrenness of the bed. The first belt is one of white in the Viola Purity, which is quite cheap and within the reach of all. Five inches or 6 inches behind it is Royal Sovereign, a deep yellow rayless variety of vigorous growth and very free-flowering. Further in another 6 inches, a belt of Maggie Mott or Mauve Queen gives a pleasing colour.

The centre, probably quite a large space, can first of all be filled with scarlet single Tulips, which should be planted as advised for Hyacinths, but about four inches deep, and the surface filled up with the double Arabis alpina alba. This is by far the most free-flowering and vigorous of this section of spring-flowering plants, and is very easy to propagate. Take a cutting as you would a Geranium cutting and insert it in the ground about three inches apart. The Tulips grow well above, and the scarlet contrasts vividly with the white

Stock-like blossoms of the Arabis, which in their mass give a slight pleasant perfume.

From early April to the end of May and into June the bed is "a thing of beauty," the Violas and Arabis keeping it gay with blossoms till the time is ripe for the transplanting of the summer occupants. Myosotis and Silenes may be used, but the effect is not so pleasing, and the extra trouble they entail in raising from seed, &c., does not recommend them when the beautiful double Arabis will flourish direct from cuttings. A pleasing variation is an edging of Scillas, a band of Snowdrops, followed by a belt of Iris reticulata, the white, yellow and mauve Violas, and, instead of the Tulips, Horsfieldii Daffodils towering over a carpet of the double white Arabis. The Daffodils

recommend others to try these flowers in like situations. Any free-flowering and strong-growing sort is amenable to this mode of culture. The variety Robert Parker is used with telling effect at Kew, and the dwarf-growing Italian Starwort (Aster Amellus bessarabicus) is likewise seen to great advantage. These flowers have leapt into popular favour within the last few years. They are specially adapted to informal grouping, and impart touches of colour warmly appreciated at this season.

SOME CHOICE BULBS FOR PRESENT PLANTING.

The charming personality of many bulbous plants is nowhere seen to greater advantage than under conditions nearly approximating to their natural habitat.

The bare ground that invariably results from the dense leafage of a Beech wood on the chalk may be transformed into a carpet of green and gold in January and February with the little Winter Aconite, so freely does this subject naturalise on this shallow soil that tens of thousands of seedlings can be counted each spring around the parent plants, and the majority of these eventually reach maturity.

Similar results may readily be attained with numbers of other bulbous plants. Anemone apennina is an instance. This lovely subject, with its starry blue flowers, is a sun-lover from Southern Europe, and revels in an open, sunny spot in garden or woodland where the soil is of moderate depth and other vegetation not too rank to choke it out. I have used it on the outskirts of Beech coverts and mixed woods of Spruce, Firs and hardwoods, and it is a revelation how rapidly the warty tubers increase. Anemone blanda is less vigorous, and is unable to compete with coarse woodland growth. It is a plant for the choice border or rock garden, succeeding in either an east or west aspect, and flowering during February and March, quite a month in advance of A. apennina. Selected forms of A. nemerosa, such as Blue Bonnet and robinsoniana, are also best grown under like conditions. The fleshy underground stems of these are exceedingly brittle, and must never be unduly exposed to the air like other bulbs.

Double and single Snowdrops (Galanthus) succeed under a great variety of conditions, and are always excellent in woodlands. The best flowers are produced from bulbs planted 4 inches to 5 inches deep, a rule that applies to most bulbs, Crocus excepted, as the latter succeed best about two inches in depth. Galanthus Elwesii, the giant form of nivalis, is not adapted for woodland planting unless the soil is of fair depth, but it attains its full development in good garden soil, and is most at home in borders or on the rock garden. The interval after Scilla bifolia flowers is occupied by the Chionodoxas, of which three varieties are admirably adapted for naturalising, namely, Luciliae, with rich blue flowers and white centre; sardensis, pure gentian blue flowers;



AN AUTUMN WOODLAND SCENE: MICHAELMAS DAISIES GROUPED FOR EFFECT.

require planting at least 6 inches deep, and cannot be planted too early in September. S. W.

PERENNIAL ASTERS AS WOODLAND FLOWERS.

It seems almost incredible that the value of perennial Asters or Michaelmas Daisies for colour effect in the woodland should so long remain overlooked. There are few flowers that succeed under the shade of trees even in the height of summer, and there are certainly no plants at this season of the year to rival the Michaelmas Daisy for this purpose. At Kew these beautiful flowers are grown in large informal clumps and massed here and there in well-chosen spots throughout the woodland. The effect is most pleasing, and we unhesitatingly

and gigantea, with large flowers of lavender blue. Greater attention might be given to Muscari at this season, as they require no special soil or attention, and when naturalised on grassy banks, beside walks, on rock gardens and similar positions they practically look after themselves. Heavenly Blue is the best variety for large effects, as it is both vigorous in growth and lasts long in flower. All the forms of Muscari botryoides and such species as comosum, neglectum, paradoxum and plumosum are admirable in short grass, while the large, fragrant Musk Hyacinth (*moschatus majus*) should be specially accommodated on the rock garden.

Few bulbous plants yield richer effects or are more permanent in their results than Narcissi. A few Narcissi that succeed best in grass are obvallaris, spurius, moschatus of Haworth, pallidus præcox and scoticus. Several of these are species and natural hybrids, and do not readily accommodate themselves to cultivated ground. A choice Narcissus to grow in grass is W. P. Milner. It is a dwarf variety, with large, elegant, sulphur-coloured trumpets slightly pendulous in habit, while of somewhat similar habit is Johnstonii Queen of Spain, with lemon yellow trumpets of exquisite grace; indeed, it is one of the most beautiful of all Narcissi when grown in grass. The Poet's Narcissus also succeeds in grass. The bright red cups and snowy perianths form a most acceptable contrast to the general run of yellows, while their fragrance is not the least of their charms. THOMAS SMITH.

Coombe Court Gardens, Kingston Hill.

THE GREENHOUSE.

NOTES ON ORCHIDS.

COOL-HOUSE ODONTOGLOSSUMS.

THE Odontoglossums are the most popular among cool-house Orchids, especially the variable *O. crispum*, which is always admired whenever seen on account of its refined beauty and its usefulness as a decorative subject, either as button-holes, for arranging in vases, or when left on the plant. There are both pure white and spotted forms, the first-named being held in high esteem by Orchid fanciers. Other species embrace harryanum, Pescatorei, luteo-purpureum, Hallii and triumphans, while the hybrids are almost legion. The various kinds of *O. crispum* have been employed by the hybridists, with grand results, while the same remarks apply to such as Pescatorei and harryanum. A few of the most attractive hybrids are Rolfeæ, ardentissimum, amabile, percultum and Phœbe.

Cultural Hints.—A suitable structure for Odontoglossums is one having a low span-roof, preferably running from north to south. Two stages are needed, one near the hot-water pipes, which is covered with finely-broken coke or shingle, and the other, usually a movable one, placed on bricks or inverted flower-pots, so as to bring the plants within the desired distance of the glass. This top stage can be made of ordinary wooden battens, left unpainted, when it retains the moisture for a much longer period. Both top and bottom ventilators must be provided, and a tank for

storing rain-water is essential, while, of course, roller blinds are a necessity, because all Odontoglossums—and Orchids in general—are shade-loving subjects. At one time it was the general rule to allow the temperature of the Odontoglossum-house to fall rather low during the winter months, but it has been proved that an average temperature of 55° to 60° Fahr. gives much better results. When the weather is frosty, however, a few degrees lower is less harmful to the inmates than excessive fire-heat. Throughout the greater part of the year a little air, both top and bottom, may be left on day and night, the exceptions being during very cold weather and when the division is vaporised for insect pests. A moist, buoyant atmosphere must be created by damping down the stages, floors and walls, say, twice or thrice each day, according to the elements outside; but in winter this must not be overdone, or the foliage may become disfigured and the tips decay.

decayed Oak leaves and sphagnum moss in equal parts. The whole is cut up fairly fine, all the dust is sifted out, and, when the ingredients are thoroughly mixed, it is ready for use. Ordinary flower-pots are selected and filled one-third of their depth with clean, broken potsherds for drainage. When the repotting operation is completed, the plants are arranged in a batch at the warmest end of the house, where they can receive special attention in regard to damping down and watering, for an overdose at this period would be detrimental to the future welfare of the plant. As growth and root action advances, the supply of water can be increased till the pseudo-bulbs are fully developed. After the completion of growth the amount of water necessary is naturally less, and at no time ought the plants to suffer from lack of moisture at the base to such an extent as to cause the bulbs to shrivel. Thrip is the worst insect enemy, but this can be kept in check by vaporising



DRY RETAINING WALL IN THE ITALIAN GARDEN AT GARSTON PARK, GODSTONE.

Repotting the Plants.—Where a quantity of Odontoglossums are grown, a few plants will need repotting at different periods of the year, but the largest number require attention in the latter part of August or early in September, while the collection is looked through again in February for any that were not quite ready, say, in September. Orchids are usually repotted when a fresh batch of roots are seen at the base of the new growth, and with Odontoglossums they are apparent when it is from 3 inches to 4 inches high. Specimens in a healthy state may be moved into a pot two sizes larger without much disturbance beyond taking away a few of the useless back pseudo-bulbs and any sour soil. All examples are not in such a happy condition, and owing to some error in cultivation, such as over-watering, have lost their roots. When this is the case, a smaller receptacle is generally the rule, for all the old compost and dead roots must be removed.

A good potting mixture is made up of Osmunda or Polypodium fibre, the best quality peat, partly

the house at intervals with one of the reliable remedies advertised in THE GARDEN. SENTINEL.

ROCK AND WATER GARDEN.

A DRY RETAINING WALL AT GODSTONE.

THE low, dry retaining wall, with rough stone steps, shown in the accompanying illustration, is in the Italian garden at Garston Park, Godstone, the residence of Mr. E. W. Blessig. As will be seen, the wall is planted with various kinds of trailing plants, while the Roses on the wall at the back form a suitable setting to the more lowly vegetation. The clock-tower was removed from St. Mary le Poer Church, Old Broad Street, London, E.C., when the church was demolished in 1907, and was erected in its present position by a former owner of Garston Park. It bears the inscription "John Thwaites 1797."

A TULIP FOR THE ROCK GARDEN.

(TULIPA PRIMULINA.)

Now that the autumn is here, we must decide what bulbs we shall buy to extend the beauty of our alpine garden. While Narcissi, Galanthus and the many species of Crocus are frequently seen, the various species of Tulipa are not so often noticed; and while to a certain extent formal in their shape, they make a delightful patch of colour amid the cushions of the alpine plants. Among the few species which I have grown, some stand out more forcibly than others, possibly because of the contrast they happened to make with other plants at the moment of flowering, rather than that they were really more praiseworthy than many of their kindred.

Certainly the brilliant yellow cups of Tulipa persica clusiana, with their rich golden bronze reverse, make a charming picture, and are

eye than in the case of *T. persica*, and if planted among some dwarf Sedum, such as *S. album*, or one of the looser-growing Mossy Saxifrages, the foliage as well as the flowers will be kept clean from splashing soil. I find they take very kindly to a compost of loam, leaf-mould and sand, worked into the already gritty soil of the rock garden, while they are very accommodating as to aspect, provided they are somewhat sheltered from driving winds, which are liable to bruise the flowers.

REGINALD A. MALBY.

THE KITCHEN GARDEN.

SEASONABLE NOTES ON VEGETABLES.

Harvesting Carrots.—There can be no doubt as to the importance of these roots during the

of quality and flavour, and those who want Parsnips in perfection must store in the beds where they have grown and draw for use as wanted. This involves covering the bed so effectually that it is impossible for frost to enter sufficiently to entirely stop digging. Spread on hay, straw, Bracken Fern—in fact, anything that may be at command, and see that the covering is equal to any demands that may be made upon it. It is wise to secure enough roots for one week each time that lifting is in hand. There will not be much loss in that time.

Winter Greens.—There can scarcely be any doubt that in some soils and situations the several kinds of green vegetables, which are of such inestimable value during the winter months, have grown more freely than is altogether desirable, for it has brought them into that condition of luxuriance which gardeners are heard to designate as “proud”—too proud, in fact, to withstand the vagaries of our peculiar weather. We cannot afford to lose them, so we must endeavour to check their progress, and it will commonly be found that treading hard round the stems when the soil is on the dry side will do all that is necessary in that direction. Alike to favour tidiness and good health, all yellowing leaves should be removed from Brussels Sprouts.

Dandelion Salad.—The day is rapidly approaching when we shall all want Dandelion salad in the winter months, and no one need find it difficult to provide. Seeds sown in thoroughly-prepared ground in April, the seedlings thinned as required to leave the plants ample space, and all weeds suppressed will ensure strong roots, which can be lifted at the same time as Carrots and Beetroots in the autumn. These are packed closely together in deep boxes with a little soil between them, and placed in a dark, warm, moist place. In a short time yellowish green leaves will push up, and it is certain that those who consume them will add a dainty salad to their dietary, and one that will render excellent aid in keeping them in good health.



A COLONY OF TULIPA PRIMULINA IN A SMALL ROCK GARDEN. BULBS MAY BE PLANTED NOW.

sufficiently dwarf—about 4 inches or 5 inches—to place close to the eye. Tulipa Greigii, too, hailing from Turkestan, makes a splendid splash of colour, as its goblets of brilliant orange scarlet, spotted on the inside, rise from their handsome leaves. With me, however, this has not proved too robust, flowering less freely than others. Perhaps I have been unfortunate, or did not give it the best position.

One of the most effective and daintily-coloured of this lovely family, and one which flowered remarkably well with me last spring, was Tulipa primulina, or, to be more exact, *T. strangulata primulina*. The flowers are of a soft primrose yellow and very beautiful in form, while the foliage is of a delicate glaucous green. A group of these suitably placed in the alpine garden is most attractive.

As their height is 12 inches or thereabouts, they can be employed somewhat further from the

winter months, when the change of vegetable food is none too abundant even in the best gardens, and the grower must spare no efforts, beyond the production of the crop, so to preserve it that the utmost value is secured. This spells care in storage, and no untidy heaps will satisfy. No root must be broken or bruised in lifting, and nothing beyond the roughest of the soil ought to be removed. Then in a suitable outhouse, cellar, or other place build up neat, square heaps of alternate layers of Carrots and sand or fine, dry soil. Here the roots will keep quite plump, retain the whole of their flavour, and are easily procurable whenever a supply may be required.

Parsnips for Winter.—It is regretted that Parsnips cannot be satisfactorily wintered in a manner identical or similar to that adopted with Beetroots and Carrots. The fact, however, remains that no matter what material is utilised for storage or where the heap is located, there is marked loss

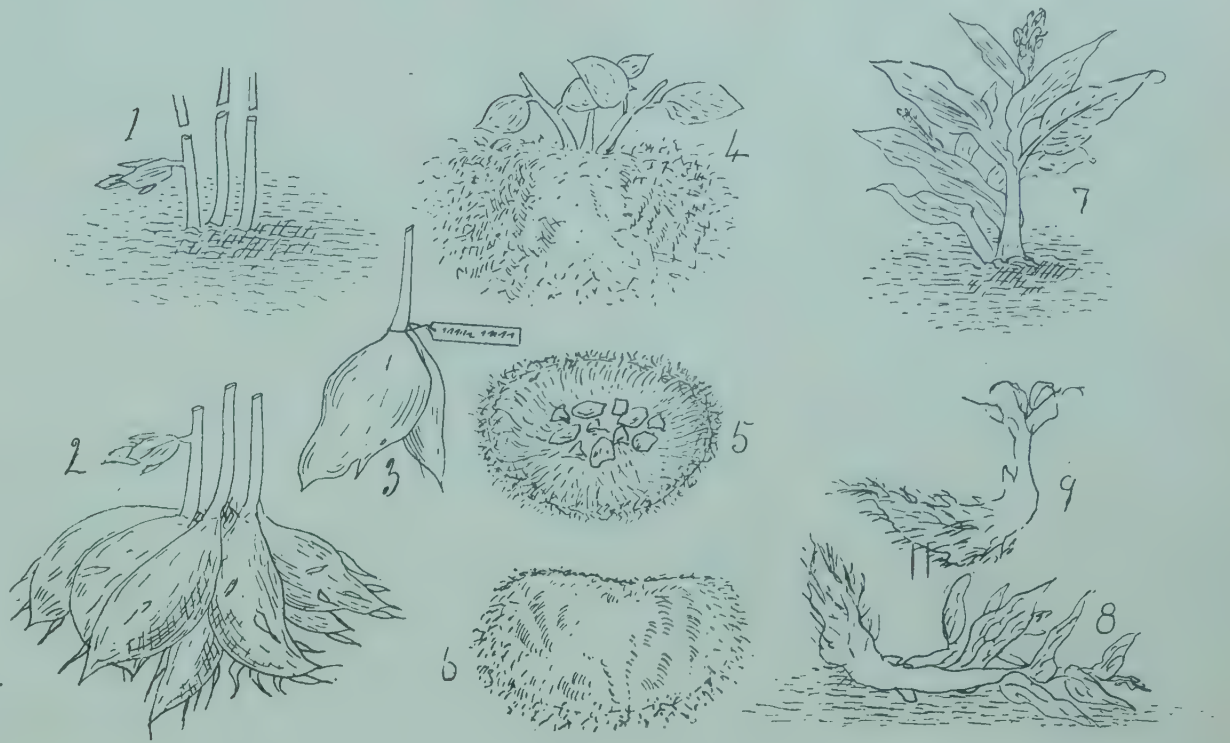
Late Potatoes.—The lifting of Potatoes still in the ground must be pushed forward with all possible speed. It is much to be feared that every variety will be seriously diseased, and no efforts must be spared to store the tubers quite dry and with every suspected specimen removed. Where spraying was adopted during the growing season the tubers are much sounder, though the almost continuous rains of that period prevented the mixtures doing as much good as they would have done in a drier season. In any case do not store in larger heaps than is absolutely imperative, and spare no efforts to examine the whole of the stock at frequent intervals. Violent heating in big heaps helps the disease to spread, and if no inspection is made it is quite conceivable that the whole of the crop will become a mass of diseased tubers. Admit plenty of fresh air to the storehouse, but strenuously guard against frosts, as they will instantly spell ruin. H. J.

GARDENING FOR BEGINNERS.

HOW TO STORE DAHLIAS, BEGONIAS AND CANNAS.

ALL these can be safely stored through the winter months by amateur cultivators who only possess primitive means for the keeping of such plants. A high temperature is neither necessary nor desirable, and some, owing to inexperience, spoil good produce through subjecting it to an unsuitable temperature. A very moderate temperature—with, of course, safety from frosts—dryness and freedom from cold draughts are essential points to observe. The Dahlia and Begonia are both very soon damaged by frosts, and the last-named may be lost through placing the tubers too close to hot-water pipes and under a drip from a plant stage.

The early frosts, which blacken the leaves of Dahlias, do not, as a rule, injure the tubers, but it is always better to take up the latter before any frosts affect the tops. The first thing to do is to make the name labels secure to the stem just above the ground, then cut off the tops about one foot from the soil-level, as shown at No. 1. The soil must be removed far enough away, so that the tubers will not be damaged by the spade and fork used. No. 2 shows a cluster of tubers properly lifted; and No. 3 a younger tuber with the label properly attached to it. No. 4 denotes a Begonia tuber as lifted from the soil; No. 5 shows the crown of the tuber with the leaf-stalks removed when well ripened; and No. 6 shows the same tuber cleared of surplus soil, and ready for storing in dry fibre, sand or soil in shallow boxes. No. 7 shows a Canna plant ready for lifting; No. 8 the same plant laid on a dry base to dry—the plants should be laid in rows on the floor of a shed and the root portion covered with mats until the leaves have shrivelled a little; and No. 9 shows the same root ready for storing in sand, soil or fibre in sheds. No. 10 shows a cluster of Dahlia tubers simply covered with straw. This is the wrong way to store them, as frost may penetrate the straw. Another wrong way to store is shown at No. 11. Begonia tubers in boxes placed so close to the hot-water pipes are sure to be lost through decay.



HOW TO LIFT DAHLIAS, BEGONIAS AND CANNAS FOR STORING.

How to Store.—Dahlia tubers are safe if stored in sand, as shown at No. 12, in a dry shed. Frost is excluded, and fungus will not grow round the crowns of the tubers. No. 13 shows how to arrange Begonia tubers in shallow boxes filled with sand or fibre. These boxes may be placed on shelves in a fruit-room or any frost-proof shed, as shown at No. 14. It is best to store Cannas underneath, also Dahlias, as shown at Nos. 15 and 16 respectively. Where walls face the north it is a good plan to put some straw against the wall to protect the roots, as shown at No. 17. The straw (No. 18) must be well padded against the wall.

The wrong way to trim Cannas and Dahlias is denoted by the sketches Nos. 19 and 20 respectively. If the stems be cut off while rather green close to the tubers, there will be a considerable weakening of the latter at once, and, later on,

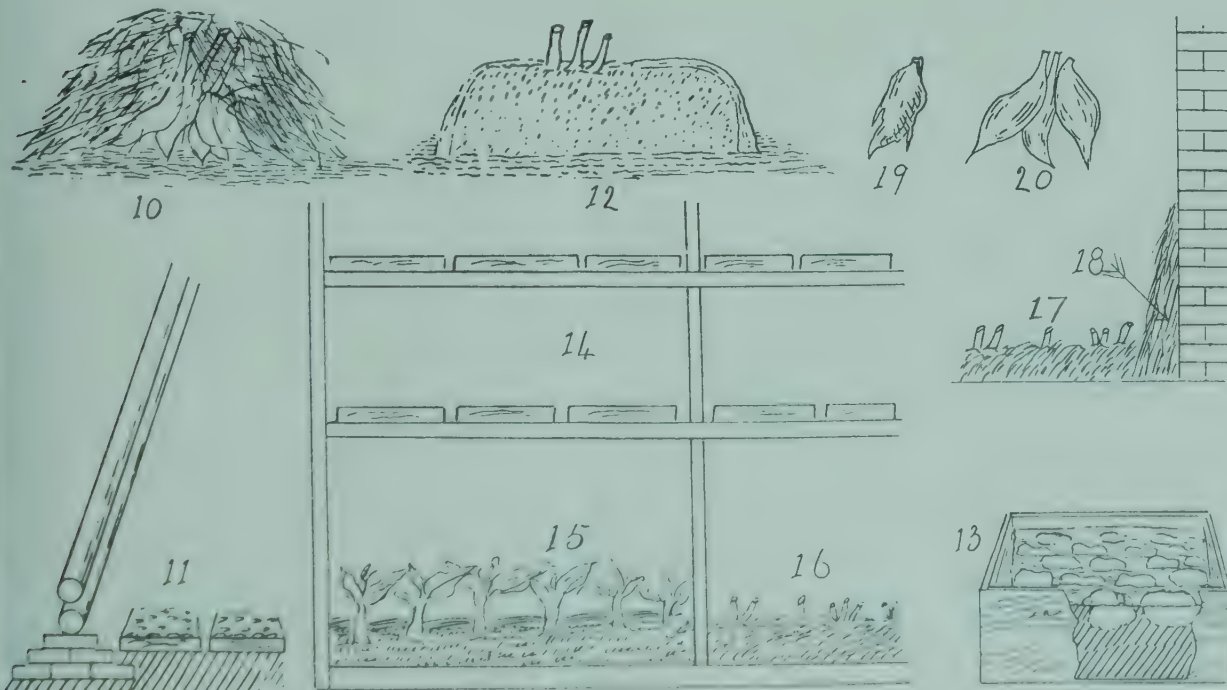
possible decay of the tuber. In some cases it may be found desirable to divide some of the roots, and where this is done the wounds made must be allowed to dry up nicely before the parts are covered over with soil, sand or fibre. A close-fitting covering is better than a loose one, such as is formed by straw or Fern, but dry straw or Fern may be put on in addition to the sand or fibre with advantage in cases where sudden severe frosts occur.

G. G.

HOW TO POT SPIRÆAS, DEUTZIAS AND DIELYTRAS FOR FORCING.

It is because every plant has to be so carefully handled and treated right from the time of potting to the flowering stage that we value them so highly. There is another reason, a not unimportant one either, namely, the general scarcity of flowers at the time the forced ones are in bloom. The work of potting, watering and forcing of these plants is a very interesting one also. The clumps of Spiræas, both those lifted from our own borders and purchased, should possess prominent crowns, and the same remark applies to the clumps of Dielytras. It is not necessary to use very large pots; if the latter are big enough to contain the root and a small quantity of soil they will do nicely. Loam and leaf-soil in equal proportions, with plenty of sand added, will make a suitable compost. As great quantities of water will be necessary later on, it is an important matter that plenty of drainage material be put in and well placed. Until required for forcing gently, keep the newly-potted roots in a cold frame, or plunged in a bed of ashes outside. Deutzia plants have fibrous roots, and if some soil adheres to them so much the better. Rather more loam must be used in the compost for Deutzias, and firm potting should be the rule. After giving one watering to settle the soil, it will not be necessary to give more than is sufficient to maintain the soil in a medium state of moisture. Deutzias should not be forced too early in the season, especially those plants that have been lifted from the open border.

SHAMROCK.



RIGHT AND WRONG METHODS OF STORING THE ROOTS.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Dahlias.—In all probability before these lines appear in print frost will have put an end to the season of flowering of these popular and invaluable autumn-flowering subjects, and those varieties that are required for next season must be lifted and the tubers preserved during the winter months. The growth should be cut down to within 6 inches of the base, and the roots carefully lifted and placed in a cool but frost-proof shed, where they may be kept dry and be examined occasionally. A little dry soil may be worked in among them; but this does not really matter. Tie the label of each variety securely to the remaining growth. This will prevent much confusion.

Spring Bedding Plants.—As soon as the summer occupants become frosted or fail to be attractive, have the plants cleared and the beds well dug and prepared for such subjects as Wallflowers, double Arabis, Alyssum and Myosotis for the spring display, so that these may become firmly established before winter sets in. Avoid planting too thickly, as if all goes well they will grow before flowering in the spring, and splendid effects may be obtained by planting suitably-coloured Tulips and Hyacinths between the plants.

The Rock Garden.

Aubrietias.—The cuttings of the numerous and beautiful varieties will now be found to strike readily if inserted in pots of sandy soil. Their freedom of flowering commends them to all lovers of alpine flowers, and included among their colourings may be found a shade to meet almost every taste. A few of the best are Lavender (a beautiful shade, as the name implies), Moerheimi (a lovely pink), Dr. Mules (a most profuse and persistent flowerer), Pritchard's Ar and Fire King.

Iberis gibraltarica.—For spring flowering on the rockery or edging to the borders this is an excellent and beautiful plant, and the stock may be easily increased at this season by cuttings, which will root readily, as will also *I. corraefolia*, with its masses of pure white flowers.

Sedum spurium splendens.—This is a charming late-flowering Sedum that is making a brilliant display, and well worthy of inclusion at this season.

Plants Under Glass.

Browallia speciosa major.—This is an exceptionally useful plant for the greenhouse at this season of the year, and for those who admire blue and its shades is indispensable. During the plant's season of growth it likes a slightly warmer temperature, but, like many others, when flowering these last much longer when allowed to expand under cooler conditions. Plants are easily raised from seeds, or may be perpetuated by cuttings taken after flowering.

Lily of the Valley.—The forcing of retarded crowns is quite an easy matter where one has the command of fire-heat, and they may be brought along in very quick time. These, after potting or boxing, are best covered over with a little moss and kept in a subdued light for a few days, keeping them well supplied with moisture.

Fruits Under Glass.

Strawberries.—The plants for forcing must be wintered in a convenient place where they are easily got at for forcing in batches later on. Much will depend on the weather experienced, and no hard-and-fast rule can be laid down as to when these should be packed away. The pots should be well packed in leaves or ashes to protect them from frosts, and, if possible, a cold frame given up to them where they can have protection from heavy rains. The plants should, of course, be placed on a firm basis, preferably cinder ashes, to prevent worms entering the pots.

Late Melons.—To finish these well requires a considerable amount of judicious care and attention as regards airing and watering. The use of manures should be very cautious, it being far better to finish smaller fruits than those larger and less flavoured. Give air at all favourable opportunities and in plenty, with a circulation of heat when the fruits are ripening and less moisture in the house, withholding water at the roots.

The Hardy Fruit Garden.

Peaches and Nectarines.—These are fruits that a great many owners of small gardens would

like to possess, and where a suitable position can be afforded them, and also protection given when in flower, with periodical attention to the trees' requirements, such as disbudding the foliage, thinning of the fruits and feeding, excellent fruits may be obtained, especially in a season such as the last. But unless the trees can be given this attention, I would urge amateurs to leave their culture alone. As soon as the leaves are off, or even before, any transplanting, lifting or root-pruning that is necessary may be carried out. Young trees that have carried no fruits are apt to make much too gross a growth, and the latter treatment will do much to improve them.

The Shrubbery.

Transplanting.—Though it seems somewhat early, the work of transplanting, especially of many of the evergreens, may be proceeded with at once, and with the continuous rains experienced this season the shrubs should move well. A rule which applies to all planting, whether fruit trees or anything else, is to have the hole sufficiently large, as nothing will check growth more than cramping the roots. Where planting of large subjects has to be done, the holes may be prepared at any time, and these form excellent places to bury leaves and other rubbish.

The Kitchen Garden.

Endive.—Continue to prick out into cold frames the seedlings that were sown last month. Lift the plants growing out of doors, and plant closely together in cold frames to blanch.

Lettuce.—This requires similar treatment, with the exception of the blanching. Ventilate the frames freely, so that the plants do not damp off.

Salsify and Scorzonera.—Where these vegetables are grown, the crop will by now have completed growth, and if the space is wanted, lift and store in sand or ashes.

Onions.—One of the best methods of storing Onions where space is limited is that known as roping, as the bulbs are easily got at when required, are exposed to the air, and are portable. Some local shows provide a class for the best rope of Onions, and it is an interesting feature. Whether intended for exhibition or no, the bulbs should be graded and placed in their sizes accordingly.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Montbretias.—As a rule it is best to lift these. They may be safely preserved if buried deeply by the side of the wall of a building—so deep that frost cannot reach them—especially if straw is heaped over them when hard frosts supervene. If any are planted at this time, see that the corms are 6 inches below the surface, and add some protecting material over all.

Herbaceous Borders.—As soon as the bulk of the flowers are over, these should be rearranged, either in whole or in part. Quite a number of plants succeed best when treated as annuals—that is, broken up and replanted every autumn or spring. The labour and rearranging are much lessened and simplified if the planting follows closely on the cultivating of the ground, and this method has the added advantage that wet, should rain fall, does not stop planting, as is the case when the freshly-worked soil gets saturated previous to replanting.

How to Plant.—Everyone has his or her own method of arranging, but the great majority of plants produce a superior effect when planted in small pieces and set close together, rather than large sets and wide apart. It is not easy for the inexperienced to credit and work upon this, but there is nothing more certain. Some plants, e.g., *Kniphofias*, if lifted do better not divided, unless very large, and others, e.g., *Statice*, *Helleborus niger*, the suffruticose *Candytufts*, Japanese *Anemones*, *Iris* generally, *Trollius* and *Astilbes*, are better if left undisturbed for a long series of years.

Weedy Perennials.—There are some, on the other hand, which extend so rapidly and persistently as to become weeds. *Senecio tanguticus*, some of the *Asters*, *Bocconias*, *Solidagos* and *Helianthus* are examples. They can hardly be dispensed with,

and the only way of keeping them within due bounds is to dig up the plants carefully before cutting over the stems and replanting with care, in early summer rooting out any pieces that have been overlooked just now.

Planting Bulbs.—If the ground is in good condition, much labour, in at least some kinds of soil, is saved if the ground is merely eased up with a fork, some rotten manure having previously been spread over the whole surface, and the ground, if dry enough, lightly pressed with the foot. The manure gets well mixed with the soil in planting either bulbs or plants. Plant rather close so as to have an even bloom. A thick dressing of soot when the planting is finished will be serviceable in hindering blackbirds from working among the soil. It also forms a very effective manure.

The Vegetable Garden.

Seakale.—Some Seakale crowns may be lifted, rested by lying for ten days or so exposed, then trimmed of roots and placed among damp leaf-soil in a box, to be covered and placed in a hothouse. The crowns are sometimes difficult to start at this season, but the drying and, subsequently, a high temperature induce growth.

Rhubarb.—A number of roots may be placed in the Mushroom-house, where they will continue throwing up stems for many weeks. I merely keep the roots moist, and place no soil or other material about them. A fresh plantation may be made now by division of the old roots, or from seedlings. Dig the ground—or trench it is better—giving about three-quarters of a ton of cow-manure to each square rod. Plant 4 feet to 6 feet apart.

Horse-radish.—Roots to last the winter may be lifted at any time, and preserved for use in a shed and covered with sand. Either now or later a fresh plantation may be made, trenching the ground 2 feet deep and inserting short pieces of the roots 10 inches below the surface. This can be done as the work proceeds. The growths come up as straight as an arrow, which material planted near the surface cannot be depended on making. Manure is not of importance for this crop, and if difficult to obtain, none need be added to the soil.

The Plant-Houses.

Cinerarias.—If frames are in a position where frost strikes them, it would be as well to transfer the plants to a pit or other suitable structure, but they succeed so much better in cold frames that they should not be removed thence until it is unsafe to leave them longer. A cool bottom should be given them in the pit, such as stone or gravel, in preference to standing them on a wooden trellis. Manure-water at regular intervals will be appreciated.

Roses.—Young plants of Dorothy Perkins, Hiawatha, &c., growing in borders may now be lifted and transferred to pots for spring flowering. If placed in a glass structure at once, let it be a perfectly cool one, when roots will be produced without the buds being excited, but the plants will do perfectly well in the open, the pots meanwhile being plunged in some moist material. Roses trained in houses may be pruned now, thinning out all weakly material incapable of bearing blooms, and shortening the others as little as possible so long as no immature points are left.

The Fruit Garden.

Currants.—Both Red and Black, may now be pruned, and the ground dressed for the winter. A large amount of young wood should be left on Black Currants, as it is mainly on this that the fruit appears. Some growers top the shoots, but, provided a supply of young ones are being thrown up from the base of the bushes, that need not be done. Anyhow, it has a tendency to thicken the shoots unduly and diminish the size of the berries.

Apples.—The root-pruning of trees that have yielded their crop may now be proceeded with. If young trees are properly managed, it seldom happens that when old they need their roots cut. Old trees should have only a portion shortened at one time, and if very old and the roots very thick, only the smaller of these should be cut.

Pears not too old are very susceptible to the influence of root-pruning. The effect on seemingly hopelessly barren trees is extraordinary, the crops in the course of two or three years being very large. Yet the utmost caution must be exercised in the case of old neglected trees, which may be killed outright if severely handled.

R. P. BROTHERTON.

Tynningham, Prestonkirk, N.B.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Pyrus veitchiana.—A new species from China and exhibited for the first time. The plants were of rather tall, spreading, diffuse habit, with Nut-like leafage and dark woody stems bearing axillary clusters of roundish crimson fruits. Judged by these examples, the plant should prove highly ornamental.

Cotoneaster bullata.—A diffuse-habited plant of rather tall growth, bearing crimson berries in bunches from the nearly horizontal or slightly drooping branches.

Berberis stapfiana.—This new species is of erect, bush-like habit and, as shown, about three feet high and through, the branches being freely furnished with spines and rather thickly set with light coral red fruits. These three novelties were exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

Aster Nancy Ballard.—This is one of the semi-double-flowered Michaelmas Daisies, and is calculated to become one of the most popular by reason of its neatness and the warmth of its rosy mauve flowers. It is of medium height and produces handsome panicles of flowers. Exhibited by Mr. Ernest Ballard, Colwall, Herefordshire.

Chrysanthemum Mrs. Lloyd Wigg.—A large and handsome variety of the drooping-petalled Japanese type, and clear canary yellow in colour. From Messrs. William Wells and Co., Limited, Merstham.

Chrysanthemum —A so-called single that is bound to be in demand because of its colour—a rich golden yellow. The variety, too, is possessed of a sturdy habit of growth, a short peduncle, and is generally well set up. Exhibited by Messrs. Cragg, Harrison and Cragg, Heston, and by Messrs. Wells, Limited, Merstham.

Cotoneaster Zabelii.—A tall and rather thin-habited species whose branches are furnished with berries of a dull red or deep crimson shade.

Cotoneaster salicifolia rugosa.—A brilliant and striking plant of considerable worth and ornament. Tall and spare of habit as exhibited, it is still freely furnished from the main stem with yard-long, slightly drooping and slender branches, which are freely endowed with clusters of scarlet fruits throughout the greater part of its length; hence it is as distinct as it is beautiful and ornamental. These two novelties were from the gardens of the Hon. Vicary Gibbs, Elstree.

Adiantum cuneatum micropinnulum.—The varietal name here is somewhat descriptive of one of the most elegant and beautiful Ferns we have seen. In effect it is an *Adiantum cuneatum* gracillimum whose pinnules have been reduced to the last degree of fineness. The red-tinted fronds of youth add to the many charms of an exceedingly graceful variety. From Messrs. H. B. May and Sons, Edmonton.

NEW ORCHIDS.

A first-class certificate was awarded to *Cattleya harrisiana*, shown by C. J. Phillips, Esq., The Glebe, Sevenoaks. It is a handsome hybrid, with white sepals and petals and a brilliant ruby purple lip. Parentage: *C. Fabia alba* × *C. Warscewiczii* Frau Melanie Beyrodt.

Awards of merit were granted to the following: *Cattleya hardyana* Herbert Goodson, from H. S. Goodson, Esq., Fairlawn, Putney; *Miltonia*

Harwoodii, from Sir Trevor Lawrence, Bart., K.C.V.O.; *Cattleya* Mrs. Pitt Charlesworth's variety, shown by R. C. Doux, Esq., Marfield, Liverpool; and *Odontioda Charlesworthii* Orchid Dene variety, from Messrs. J. and A. McBean, Cooksbridge.

All the foregoing were shown before the Royal Horticultural Society on the 8th inst., when the awards were made.

ANSWERS
TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

PHLOXES (Miss E. A. H.).—Without seeing specimens of the disease we could not say what is amiss, though from the suddenness of the failure it might be due to stem eelworm, and if so, your only remedy is to cut down and burn all affected parts. Wireworm, if present in the soil, might also be responsible for the mischief, and if so, the bored stems should afford the proof.

MIGNONETTE (M. D.).—Your Mignonette is attacked by a fungus at the root. Fungi are, as a rule, greatly encouraged by the presence of an acid soil, and Mignonette, on the contrary, delights in lime-rubble. We have, just where we are writing, one of the finest beds of Mignonette we have ever seen, growing in mortar rubbish and a little sandy soil. You would probably have better success if you had some lime-rubble mixed with the soil in which you are going to sow your Mignonette another season.

PHLOXES FAILING (M. C. L.).—The failure has been brought about by stem eelworms, and the only thing to be done in the circumstances is to collect all the affected parts and burn them. This is the more necessary, since the pest is likely to be perpetuated from year to year through the medium of its eggs, as these continue in the soil and in due course gain entrance to the stems of the plants. The soil should be treated with sulphate of potash at the rate of 1 lb. to 12 square yards or 15 square yards. A few months later a further application might be given, first stirring the soil well.

TREES AND SHRUBS.

POTTING VALLOTA LILIES (Y. G. W.).—The best time to repot Vallota Lilies is immediately the flowers are past. Annual repotting is, however, by no means necessary, providing the roots are in good condition; indeed, when in that state they will stand for two or three years without being potted. Vallotas, in common with other bulbous plants, will flower freely when the bulbs are tightly packed together in the pot. At the least sign of decay about the roots they should, however, be repotted.

BLUE HYDRANGEAS (T. S. and N. L.).—In some soils Hydrangeas turn blue, while this tint is often produced artificially. It is generally assumed that the presence of iron in the soil is the cause of the change, and this has been borne out by numerous experiments. When grown in pots, one of the most successful methods of treatment is to thoroughly mix about a tablespoonful of sulphate of iron with each peck of soil. Then, in addition, as the pots get full of roots, put a pinch of it in the water about twice a week. Refuse from the blacksmith's shop is sometimes mixed with the soil, but it is less satisfactory than using the sulphate. Alum-water has also been used to induce the required blue colour. The alum should be given at the strength of 1 oz. to each gallon of water. To prepare the alum, it must first be crushed and dissolved in a little hot water. This should be given directly the flower-buds are visible, watering the plants with it at intervals of eight or ten days, and discontinuing it when the flowers open. It must never be given when the roots are very dry. A liberal quantity of lime in the soil is against obtaining the required blue colour. We have just heard of a Continental preparation for making Hydrangeas blue. It is called Cyanol, and can be obtained from horticultural sundriesmen. We have not tried it ourselves, but know where it has given satisfaction.

ROSE GARDEN.

BORDER AND ROSE-BED (Enquirer).—With regard to the portion intended to be devoted to Roses, the idea of an addition of clay soil is good, provided that you intend to incorporate this with the staple soil. Our advice for the entire border would be to give a 9 inch dressing of the clay throughout, allow it to lie exposed to the action of air and frost for some weeks, then deeply trench the whole, and break down and incorporate the clay as the work proceeds. After trenching add burnt refuse from the garden rubbish fires, and after the lapse of a month retrench the whole and add well-decayed manure freely. In this way you would secure a permanently useful soil, together with a liberal addition of lime present in the clay, and of which your present soil stands much in need. With the second trenching completed, you might plant the Roses at once, or you might leave the planting of the whole border till the turn of the year.

REMEDY FOR BLACK SPOT (S. M. B.).—We wish we could help you; but, unfortunately, there seems to be no remedy for this disease. We really believe it is largely imported from the Continent, for we know whole fields are defoliated by the pest in some seasons. If you could transplant your Roses to a new site, or have the beds overhauled this autumn, you might get rid of the pest, and unless the plants are old we should strongly advise this plan. By trenching deeply and burying the surface soil you would largely destroy the fungus; then in spring commence early and continue to spray throughout the summer with Cupram, which is a preparation of carbonate of copper dissolved in ammonia; or, if you cannot obtain this, spray with Bordeaux mixture.

ROSE FOLIAGE BLIGHTED (I. C. B.).—The foliage you send is badly attacked with mildew, a disease or fungus very much in evidence among Roses at this season of the year. It can be kept in check, if not entirely subdued, by timely spraying with V2 K Fluid or Jeyes' Horticultural Wash, and for both we would refer you to our advertisement columns. Often these rambles suffer from drought. We look after other Roses, but too frequently these are neglected. We should advise you to cut off the badly-diseased shoots and burn them, then give a good spraying with the wash. Also fork around the plants and give each of them four or five gallons of water, repeating this once a week if the weather continues dry. Some liquid manure would also be helpful, but it is best to apply the plain water first.

ROSE FOLIAGE DAMAGED (P. H.).—As you have not sprayed the Roses, we cannot attribute the damage to the insecticide, although at first sight we were disposed to do so. There must be something in the soil or air to cause such damage. Have you any chemical works near you? Or have the plants had too strong a dose of some chemical? We should advise you to dig a plant up and examine its roots. If the fine roots are quite white they are all right. There is, unfortunately, such a tendency to make up Rose-beds containing all sorts of chemicals that the wonder is so few of the plants fail. Perhaps you can furnish us with some particulars as to the making of the beds. In the meantime cut off this scorched foliage and cut back the growths to good strong eyes. Keep the soil well stirred and refrain from artificial watering for a time.

ROSES FAILING (P. H.).—There was very careless preparation adopted as regards the plants, for they had been planted without pruning their roots. It is always advisable to trim these back rather considerably before planting. Evidently the soil is not at fault, for you say some of the plants are sending up nice shoots now. We fear there is great carelessness adopted by some growers when they despatch the plants in not taking sufficient care of the roots. These should always arrive in a moist condition, and most up-to-date Rose-growers see that this detail is attended to. We advise you to look carefully into this matter when planting again. On trimming the roots they should be quite white when cut, and should have a sort of fleshy appearance. You can soon detect by this if the plants are healthy. If they are dry and shrivelled, we should refuse such plants.

MISCELLANEOUS.

NAMES OF PLANTS.—F. M., *Workshop*.—1, *Quercus nigra* (Water Oak); 2, *Q. Phellos* (Willow Oak); 3, *Pyrus torminalis* (Wild Service).—*Hamish*.—1, *Asplenium Filix-foemina cristatum*; 2, *A. F.-f. cristatum cristatum*; 3, 4 and 5, forms of *A. F.-f. Frisellæ capitatum*; 6, *A. F.-f. cristatum cristatum*; 7, *Scolopendrium vulgare* variety; 8, *Aspidium aculeatum*.—W. E. P.—1, *Cryptomeria elegans* (Japan Cedar); 2, *Muehlenbeckia varians*; 3, *Helxine Solierii*.—A. W., *Somersct*.—1, *Cotoneaster frigida*; 2, *Chrysanthemum uliginosum*; 3, *Solidago canadensis* (Canadian Golden Rod).—T. R., *Hillingdon Heath*.—Spindle Tree (*Euonymus europæus*).—Mrs. G.—*Polygonum orientale*.—E. F. C., *Hants*.—*Chironia ixifera* syn. *C. linoides*.—D. M. M.—1, *Cotoneaster Simonsii*; 2, *Escallonia macrantha*.

NAMES OF FRUIT.—W. H., *Surrey*.—Dutch Codlin. —B. Marshall, *Herts*.—Rosemary Russet. —Stockwith. —F. Bramley's Seedling; G. Jolly Beggar; H. Lane's Prince Albert; M. Nelson's Codlin. —*Mercury*.—1, Wellington; 2, Cat's-head; 3, Fearn's Pippin; 4, too poor to name; 5, Bowhill Pippin; 6, Pearson's Plate; 7, Dutch Mignonne; 8, Withington Füllbasket; 10, Peasgood's Nonsuch; 11, Sugar-loaf; 12, Alfriston; 20, Beauty of Hants; 30, Swan's Egg; 31, Bishop's Thumb; 32, Josephine de Malines. —*Captain M. B.*, *Northumberland*.—1, Maltster; 2, Dutch Codlin; 3, Flanders Pippin; 4, Cox's Pomona; 5, Lemon Pippin. —G. J. B.—1 and 2, Bismarck; 3, King of the Pippins; 4, Ross Nonpareil; 5, Hawthornden; 6, Cobham; 7, Flanders Pippin; 8, Vicar of Winkfield.

SOCIETIES.

EXHIBITION OF BRITISH-GROWN FRUIT.

FROM the standpoint of popularity among professional gardeners and market-growers, the annual exhibition of British-grown fruit is the best the Royal Horticultural Society holds at Vincent Square. The display on Thursday and Friday of last week, though not quite so extensive as usual, was of exceptionally good quality throughout, and proved that first-class fruit can be grown in seasons as unfavourable as the past has undoubtedly been.

In the class for the Affiliated Societies' Challenge Cup, for six dishes each of cooking Apples, dessert Apples, and dessert Pears, distinct, six fruits to each dish, there were four entries, the first position being won by the Ipswich Gardeners' and Amateurs' Association. The Pears here were exceptionally good, and the dishes of Apples Ribston Pippin, King of the Pippins, Cox's Orange Pippin, Peasgood's Nonsuch, Charles Ross and Bramley's Seedling called for special mention. Second prize went to the East Anglian Horticultural Club, which won the challenge cup last year. The Pears here were even better than those in the first-prize collection, but the Apples were not quite so well coloured. Annie Elizabeth was, however, a superb dish. Third honours went to the Colchester and District Gardeners' Association, Pitmaston Duchess Pear and Cox's Orange Pippin and Newton Wonder Apples calling for special mention. The challenge cup was awarded to the Colchester Association as Ipswich and East Anglian have won it during the last three years.

DIVISION I.

Open to Gardeners and Amateurs Only.

For a collection of nine dishes of ripe dessert fruit there were four superb collections, Lady Henry Somerset, Eastnor Castle, Ledbury (gardener, Mr. G. Mullins), being placed in the coveted first position with an almost perfect collection. Grapes Muscat of Alexandria and Gros Maroc, Countess Melon, Charles Ross Apple, Pineapple Nectarine, Peaches Late Devonian and Barrington, and Doyenné du Comice and Pitmaston Duchess Pears were other items shown. These were in every way admirable. Second, the Duke of Newcastle, Clumber, Worksop (gardener, Mr. S. Barker), whose weaker bunches of Grapes told against him for the first place. The finer dishes were Appley Towers Grapes,

Peaches Golden Eagle and Solway, Apple Washington, and Pitmaston Duchess Pears, which were very fine. The Peaches and Pears were particularly good and strong in this lot. Third, the Earl of Harrington, Elvaston Castle, Derby (gardener, Mr. J. H. Goodacre), whose Golden Eagle Peaches and Washington Apples were very fine.

For a collection of six dishes of ripe dessert fruit there were six entries, the leading place being occupied by Lord Belper, Kingston Hall, Derby (gardener, Mr. W. H. Cooke), whose best dishes were bunches of Gros Colmar Grapes, fine in berry and well finished; splendid Gladstone Peaches, and Charles Ross Apples of magnificent quality (see illustration above). Second, Lord Hillingdon, Wilderness, Sevenoaks (gardener, Mr. Shelton), whose Doyenné du Comice and Pitmaston Duchess Pears were very good. Muscat of Alexandria Grapes were also good in this collection. Third, Lord Howard de Walden, Audley End, Saffron Walden (gardener, Mr. J. Vert), who showed some capital dishes of fruits.

For five distinct varieties of Grapes, two bunches of each, the Duke of Newcastle, Clumber, Worksop (gardener, Mr. S. Barker), was in the place of honour, his fine examples

being Gros Maroc, Buckland Sweetwater, Madresfield Court and Muscat of Alexandria. The first-named were particularly well coloured. Second, the Earl of Harrington, Elvaston Castle, Derby (gardener, Mr. J. H. Goodacre), with good examples of Golden Queen, Gros Maroc and Muscat of Alexandria. Mr. Charles Beyer, Tewkesbury Lodge, Forest Hill, S.E. (gardener, Mr. E. C. Wickens), was recommended a third prize. There were five collections staged, all of admirable quality. Our sympathies are entirely with the judges' recommendation for a third prize, two prizes in such a class being, in our opinion, altogether inadequate.

For four varieties of Grapes, two bunches of each, Lord Hillingdon, Wilderness, Sevenoaks (gardener, Mr. J. Shelton), was first, having in his lot two superb bunches of Muscat of Alexandria, which for colour and finish were excellent. Second, Mr. H. St. Maur, Plover Park, Newton Abbot (gardener, Mr. G. Richardson), whose Muscat of Alexandria and Mrs. Pince were of good quality.

For two bunches of Black Hamburgh Grapes, the Rev. W. Beecher, Willow Hall, Newark, was first with good bunches of well-finished berries. Second, the Duke of Newcastle, Clumber, Worksop, whose larger bunches were composed of somewhat smaller-sized fruits. There were half-a-dozen competitors in this class, though the quality shown was not so high as might have been expected.

For two bunches of Mrs. Pince Grape only three competitors came to the front, the first prize going to Mr. H. St. Maur, Plover Park, Newton Abbot (gardener, Mr. Richardson), who had good bunches of well-finished fruits. Second, Mr. G. Miller, Radlett.

For two bunches of Alicante Grapes there were eleven competitors, the place of honour being secured by Mrs. W. G. Raphael, Castle Hill, Englefield Green (gardener, Mr. H. Brown), who had superbly-finished bunches of fruits. Second, Lady Henry Somerset, Eastnor Castle, Ledbury. Third, Lady Tate, Park Hill, Streatham Common (gardener, Mr. W. Howe).

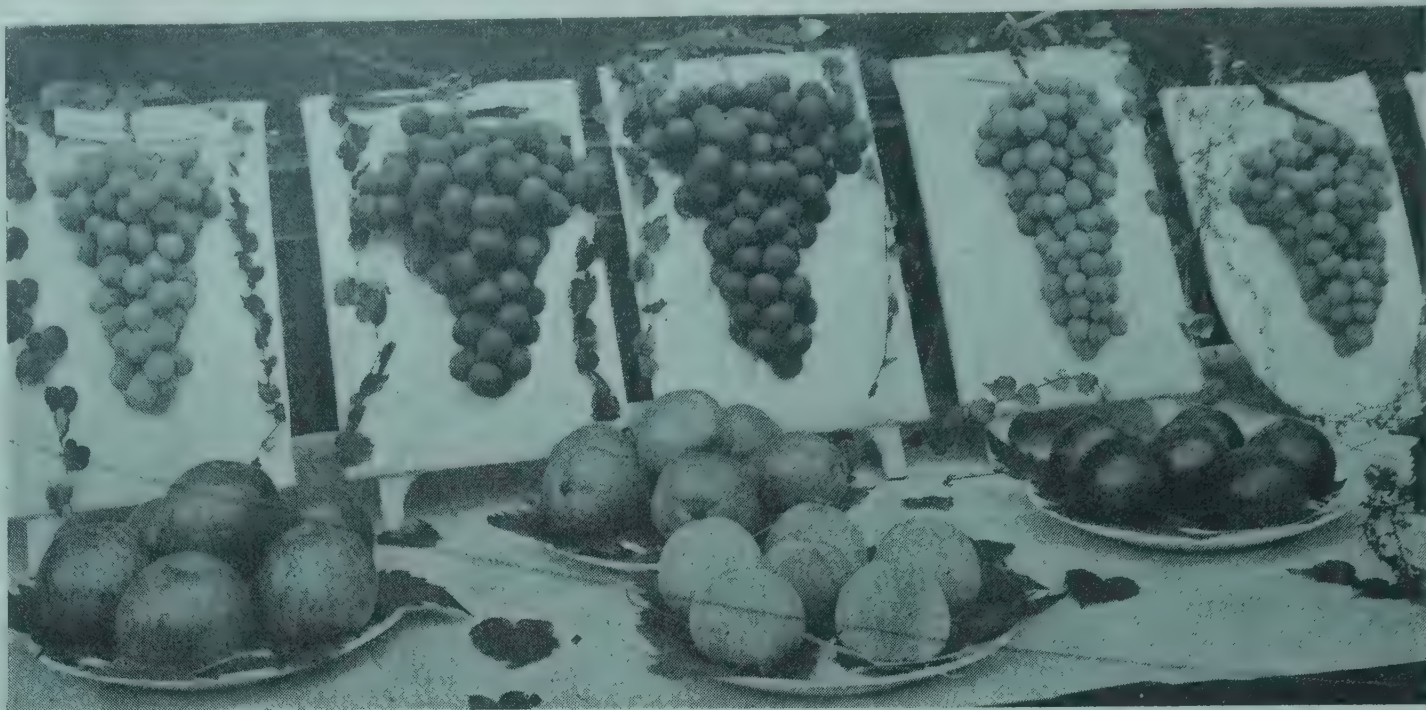
Two bunches of Madresfield Court Grapes: First, the Earl of Harrington, Elvaston Castle, Derby, who showed well-finished bunches of fruits; second, Lord Savile, K.C.V.O., Rufford Abbey, Ollerton; third, the Duke of Newcastle, Clumber, Worksop. In this class the prize-winner in the second place had much the largest bunches, but they were not so well finished as a whole. Obviously size of berry and fine finish, and not big bunches, carry the greatest weight with the judges.

For two bunches of Grapes Prince of Wales, Lord Savile, K.C.V.O., Rufford Abbey, Ollerton (gardener, Mr. J. Doe), was in the first place with superb bunches of fruits, handsome in the highest degree. Second, Mr. H. H. König, Blundley Heath.

For two bunches of any other black Grapes there were thirteen competitors, the first prize going to medium-sized, well-finished bunches of Appley Towers from Mr. J. Liddell, Sherfield Manor, Basingstoke (gardener, Mr. R. Learmouth). Second, Mrs. W. G. Raphael, Castle Hill, Englefield Green, who had Lady Downe's. The Duke of Newcastle had some huge bunches of Trebbiana, and Lady Henry Somerset fine examples of Gros Maroc. We think so popular a class is deserving of more than two prizes.

For two bunches of Muscat of Alexandria Grapes there were eleven entries, Mr. W. W. Mann, Ravenswood, Bexley (gardener, Mr. J. Simon), taking the leading place with finely-finished bunches of fruits. Second, the Right Hon. Lord Hillingdon, Hillingdon Court, Uxbridge (gardener, Mr. A. R. Allan), with handsome bunches. Third, Lady Henry Somerset, Eastnor Castle, Ledbury.

For two bunches of any other white Grape there were eight entrants, Mr. C. A. Cain, The Node, Welwyn (gardener, Mr. J. Pateman) being first with fine examples of Mrs. Pearson. Second, Mr. W. B. M. Bird, Earham House, Chichester. Third, Mr. Charles Bayer, Tewkesbury Lodge, Forest Hill, S.E. The quality in this class was not of a high standard generally.



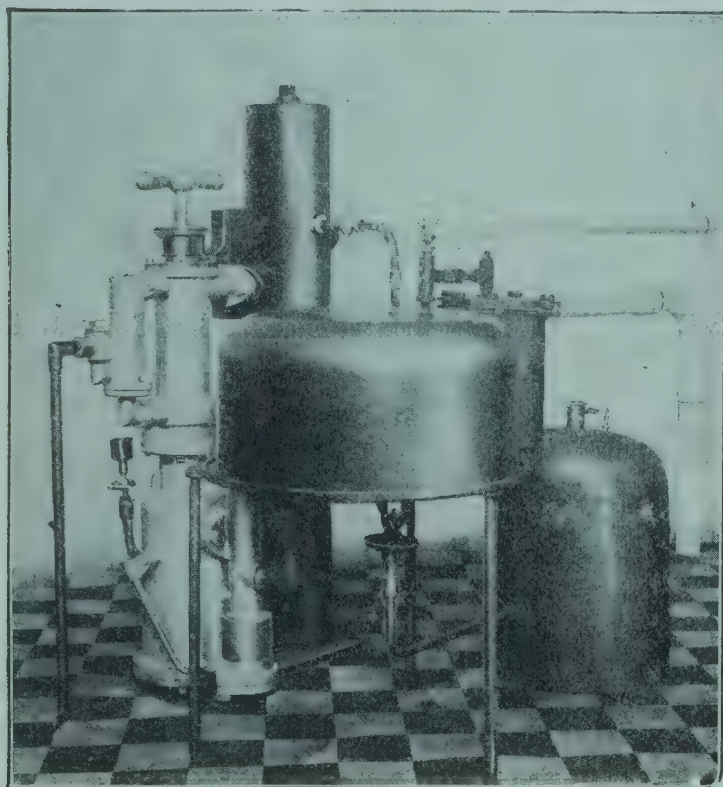
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perfectly hardy and unspeakably
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SIX NEW RAMBLERS for 6/-; 3 for 3/6, or 1/6 each.

American Pillar	Lady Godiva	Shower of Gold
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6 grand Climbing Roses for walls, etc., for 5/-; 3 for 3/6, or
1/6 each. Climb. Liberty, Climb. Lady Ashtown, Reve d'Or.
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ROSES. ROSES.

Our Roses are noted for their
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upon. We are winners of
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1 doz. of newer variety H.T.	...	10/6
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Rose Trees 6d. each.

Lyon Rose, Madame M. Soupert, Betty W. Shean, Warrior,
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Gosford, Dr. O'Donnel Browne, Mrs. A. Ward, Joseph Hill,
Lady Faire, W. E. Lippiatt, and hundreds of other varieties,
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shows, including the National Rose Society, Hanley, Saltaire,
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The collection of hardy fruits in a space not exceeding 12 feet by 3 feet was won by Sir Marcus Samuel, Mote Park, Maidstone (gardener, Mr. W. H. Bacon), who staged thirty dishes of excellent Apples and Pears, this being the only entry in this class.

DIVISION II.

Open to Nurserymen Only.

Some of the finest fruit in the show was to be seen in the large classes open to the trade only. For a 30-foot run of 6-feet tabling Messrs. G. Bunyard and Co., Maidstone, secured first place and a gold medal for a truly magnificent display. Messrs. J. Cheal and Sons, Crawley, followed, and were awarded a silver-gilt Knightian medal. A similar high award and third prize were won by Messrs. H. Cannell and Sons, Swanley, Kent.

For a 20-foot run of 6-feet tabling Messrs. R. C. Notcutt of Woodbridge were the winners of the first prize and a gold medal, followed by the Barnham Nurseries, Limited, and Messrs. S. Spooner and Sons, Hounslow, both of whom received the society's silver-gilt Knightian medal.

In a similar class for a 12-foot run of tabling Messrs. Laxton Brothers, Bedford, and Messrs. W. Seabrook and Sons, Chelmsford, were the winners in the order named, both being awarded the society's silver Knightian medal.

There were no entries in the class for a 6-foot run of tabling.

The class for orchard-house fruit trees was won by Messrs. T. Rivers and Son, Sawbridgeworth, who likewise gained a gold medal for their superb collection of fruit trees in pots. The second prize and silver-gilt Banksian medal were won by the King's Acre Nurseries, Limited, Hereford, with a highly-creditable collection.

Messrs. Rivers and Son were again successful in securing first place for nine Vines growing in pots. A silver Knightian medal was awarded to this admirable group.

DIVISION III.

Open to Market-growers Only.

For twenty baskets of Apples, cooking and dessert, distinct, there were two competitors, the first prize being awarded to Messrs. Gaskain and Whiting, Dargate, Faversham, for a splendid exhibit, the best baskets being Cox's Orange Pippin, Charles Ross, Rival, American Mother, King of Pippins, King of Tompkins' County, Allington Pippin and Blenheim Orange; while such as Lord Derby, Newton Wonder, Warner's King (see illustration, page 536), Peasgood's Nonsuch, Stone's Pippin, Cox's Pomona and Bramley's Seedling, all giants in their way, were represented by magnificent examples. A really sumptuous gathering of the best. Gold medal. Second, The Hollisley Bay Labour Colony, Suffolk (Mr. B. Smart), whose best examples were Allington Pippin, Blenheim Orange, Peasgood's Nonsuch, Charles Ross and Warner's King.

For twelve baskets of Apples (six cooking and six dessert), Mr. A. E. Mason, Rectory Farm, Hampton, was a good first, having finely-finished baskets of fruits of such as Cox's Orange Pippin, Ribston Pippin, King of the Pippins, Charles Ross, Wellington (a grand sample), Beauty of Kent and Bismarck, one of the grandest exhibits in the show; Newton Wonder, Lane's Prince Albert, Yellow Ingestre, James Grieve and Bramley's Seedling. This was a most telling exhibit; there was not a weak basket in the lot. Many examples were grand. Second, Mr. H. Lumley Webb, Sittingbourne (gardener, Mr. J. Holloway), whose best examples were King of the Pippins, Worcester Pearmain and Peasgood's Nonsuch. Tower of Glamis and Rival were also good in this lot.

There were no entries in Class 22 for six baskets of Pears, distinct.

DIVISION IV.

Open to Gardeners and Amateurs Only.

For twenty-four dishes of Apples, sixteen cooking and eight dessert, the first prize fell to the lot of C. A. Cain, Esq., The Node, Welwyn (gardener, Mr. T. Pateman). Among cooking varieties, Emperor Alexander, Gloria Mundi, Washington and Queen were particularly good, while Ribston Pippin, James Grieve, Rival, Charles Ross and Cox's Orange Pippin were the pick of the dessert varieties. The second prize was won by Sir Marcus Samuel, Bart., of Mote Park, Maidstone (gardener, Mr. W. H. Bacon).

For eighteen dishes of Apples, twelve cooking and six dessert, the first prize was won by J. G. Williams, Esq., Pendley Manor, Tring (gardener, Mr. F. G. Gerrish), whose dishes of Bramley's Seedling, Beauty of Kent and Peasgood's Nonsuch were much admired among the cooking varieties, and Red Blenheim, Charles Ross and Ribston Pippin were foremost among the dessert varieties. There were no other exhibitors in this class.

For twelve dishes of Apples, eight cooking and four dessert, the first prize was won by J. Liddell, Esq., Sheffield Manor, Basingstoke (gardener, Mr. R. Learmouth), with a dozen creditable dishes, including the cooking varieties Peasgood's Nonsuch, Royal Jubilee and Gascogne's Seedling, and dessert varieties King of Tompkins' County and Allington Pippin.

Six dishes of cooking Apples: First, C. A. Cain, Esq., with capital dishes of Peasgood's Nonsuch, Warner's King and Emperor Alexander; second, Lady Henry Somerset, Eastnor Castle, Ledbury (gardener, Mr. G. Mullins). This exhibit contained first-rate dishes of Tyler's Kernel and Alexandria.

For six dishes of dessert Apples, Lady Henry Somerset was first, showing beautifully-finished dishes of Cox's Orange Pippin, Rival, Ribston Pippin, King of the Pippins and James Grieve; second, Sir Marcus Samuel, Bart.

Considerable interest was centred in the class for eighteen dishes of dessert Pears, the first prize being won by Colonel B. J. Petre, Westwick, Norwich (gardener, Mr. G. D. Davison). The fruits shown were of remarkable size, and included very heavy dishes of Pitmaston Duchess, Souvenir du Congrès, Durondeau, Doyenné du Comice and Marguerite Marillat. Second, C. A. Cain, Esq., Welwyn; third, J. Liddell, Esq., Basingstoke.

The first prize for six dishes of dessert Pears, distinct, was won by Sir Edmund G. Loder, Leonardlee, Horsham (gardener, Mr. W. A. Cook), with very well-finished dishes, including Doyenné du Comice and Marie Benoist.

The first prize for three dishes of stewing Pears was won by Colonel Petre with remarkably fine dishes of General Todleben, Uvedale's St. Germain and Catillac.

DIVISION V.

Special District County Classes. Open to Gardeners and Amateurs Only.

The following classes are for Apples, six dishes, distinct, four cooking and two dessert, and dessert Pears, six dishes, distinct:

Kent.—Both classes were won by Captain G. Reid, Yalding (gardener, Mr. J. Colman). The same exhibitor was also successful in some of the classes for single dishes of fruit.

Open only to growers in Surrey, Sussex, Hants, Dorset, Somerset, Devon and Cornwall.—The first place for Apples was won by the Duke of Richmond and Gordon, Goodwood (gardener, Mr. F. Brook). F. J. B. W. Digby, Esq., Sherborne, was first for Pears.

Open only to growers in Wilts, Gloucester, Oxford, Bucks, Berks, Beds, Herts and Middlesex.—Apples: First, Mr. J. B. Fortescue, Maidenhead. Pears: First, Lord Hillingdon, Uxbridge (gardener, Mr. A. R. Allan).

Open only to growers in Essex, Suffolk, Norfolk, Cambridge, Hunts and Rutland.—Apples: First, the Right Hon. W. Lowther, Campsea Ashé. Pears: First, Colonel the Hon. C. Harboro, Norwich (gardener, Mr. W. Allan).

Open only to growers in Lincoln, Northampton, Warwick, Leicester, Notts, Derby, Staffs, Shropshire and Cheshire.—Apples: First, Mr. F. Bibby, Shrewsbury.

Open only to growers in the six northern counties of England and in the Isle of Man.—The premier awards for both Apples and Pears were won by Baron de Forest, Market Weighton.

Open only to growers in Scotland.—Apples: First, Colonel Gordon, Castle Douglas. Pears: First, R. M. Pilkinton, Esq., Fife, N.B.

Open only to growers in Ireland.—Apples: First, the Earl of Bessborough, Piltown.

Division VI. was entirely devoted to classes for single dishes. Apples, Pears and Plums were alike well represented: but as there were almost one hundred classes for single dishes, pressure on space prevents us from recording these numerous and, in many instances, well-contested classes.

BOURNEMOUTH GARDENERS' ASSOCIATION.

At the last fortnightly meeting of the members there was a very good exhibition of vegetables and fruit shown for prizes off red. Plants and vegetables were staged for the "Points Prizes" in addition to the above. The president, J. R. Ralph Smythe, Esq., was the winner in the class for three kinds of vegetables, staging very fine Cauliflowers, large Runner Beans and well-coloured Beet. Mr. Lansley was a good second with large, shapely Onions, firm Brussels Sprouts and medium Peas. Third prize went to Mr. B. Marlow for Brussels Sprouts, Potatoes and Onions. For three dishes of fruit, Mr. E. G. Cox was awarded first prize. He had splendid fruits of Peasgood's Nonsuch Apple, Pitmaston Duchess Pears and very fair Alicante Grapes. Mr. Heath was second. He staged Pitmaston Duchess Pears, Striped Beaufin Apple and Black Hamburg Grapes. In the competition for the "Points Prizes," Mr. Pavey had big, solid sticks of Celery, Mr. Heath a beautiful Coleus, Mr. Evans a nice Croton, and Mr. Pearce a trio of lovely Ferns.

"Vegetables: How they Should be Prepared for the Table" was the subject of the lecture given by Mr. E. T. King of Higham Gardens, Bournemouth. Mr. King, who is a vegetarian, included fruit in his lecture. He recommended the eating of both vegetables and fruits in their proper seasons, and also the consumption of the skins as well after thoroughly cleansing them from all contamination. Steaming instead of boiling was advocated, and instead of slicing or cutting up vegetables, they should be cooked whole; then their juices and the maximum amount of nourishment were retained. To make a vegetable stew for one person, four kinds of vegetables, 4oz. of each kind, with Pearl Barley, were required. Mr. King answered many questions during the long discussion which followed. Heartly votes of thanks were accorded Mr. King and the chairman, Mr. Smith, at the close of the meeting.

SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY.

PRESENTATION TO THE SECRETARY, MR. C. S. FUIDGE. The celebration of the above society's jubilee has entailed an immense amount of extra work upon the secretary, his exertions resulting in two exhibitions, the Rose Show and Jubilee Show, of which any society would have been proud. Unfortunately, the local public either were not interested or did not realise the extent and excellence of the shows, and the attendance was most disappointing, resulting in a loss on the two shows of over one hundred pounds. Consequently the council of the society had no funds from which to adequately compensate the secretary, and therefore decided to hold an evening *fête* for his benefit. Although the *fête* itself was not very successful, the subscriptions to the benefit fund enabled the chairman, at a meeting of the council recently, to hand to Mr. Fidge a cheque for a substantial sum, together with a gold medal, as a memento of the Jubilee year. Mr. E. K. Toogood, in making the presentation, remarked that Mr. Fidge had been connected with the management of the society since 1867, five years as a committeeman and forty years as secretary, a very rare service which should entitle him to the Victoria Medal of Honour.

READING GARDENERS' ASSOCIATION.

THE second meeting of the session took place in the Abbey Hall (kindly lent by Messrs. Sutton and Sons) on Tuesday of last week. There was again a large attendance, the president (Alderman F. B. Parfitt) occupying the chair. Mr. H. C. Loader of The Gardens, Erleigh Park, lectured on "The Value of Observation to the Gardener." Addressing himself particularly to the younger members of the audience, Mr. Loader strongly advised them not to neglect the cultivation of the faculty of observation. He recalled many instances in his early career in which the study of

and attention to, matters which happened to come under his notice, though not necessarily under his care, became exceedingly helpful to him when the time came to take the full responsibilities of a head-gardener. He also urged them not to overlook the value of the opportunity now offered—a privilege not available when he was a youth—of attending the horticultural and other classes promoted by the University College, Reading. The knowledge gained by a course of study at such classes would prove of inestimable value later in life, when the object of every young gardener's ambition, viz., becoming "head," had been attained. Mr. Loader was thanked for his lecture, and also congratulated on a very finely-grown collection of vegetables (from the gardens at Erleigh Park) staged by him. Mr. T. Judd exhibited giant Potato tubers, and Mr. F. Townsend brought from The Gardens, Hillside, a monster Woodwardia radicans (Chain Fern), which was greatly admired. Several new members were elected.

"Country Life" for October 19 contains, among other articles, an illustrated account of "Holdenby House, Northamptonshire"; "Tattersalls," by Lady Lover; "Tom Moody" (Poem), by Will H. Ogilvie; "Some Faults of the Modern Foxhound.—I." (illustrated), by H. A. Bryden; "The Evolution of the English Hunter" (illustrated).

TRADE NOTE.

A PROFUSELY-ILLUSTRATED CATALOGUE.

SELDOM indeed do we see catalogues so profusely illustrated as one devoted to bulbs, hardy border flowers and rock plants issued by Messrs. Pennell and Sons of Lincoln. This well-known firm, established as far back as 1780, makes a special point of issuing various catalogues, all carefully compiled and illustrated by their own photographs, which are constantly being changed in order to give their readers ideas which cannot be conveyed by names and descriptions. We heartily recommend their bright and interesting publication to the notice of our readers.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

BEES' GUARANTEED ROSES



755. Frau Karl Druschki.
"Snowy white." 6d.; 5/6 doz.

"WHAT A FUSS BEES MAKE"

about their Roses and their Bulbs"—so say some readers when they see Bees' advertisements, week after week, talking about **Guaranteed Quality**. Then they begin to wonder why Bees' Roses and Bulbs are "different." But when they write for catalogues and buy, they soon realize the difference.

The Roots of Bees' Guaranteed Roses are vastly "different." Grown on Bees' 200 acre farm in North Wales, exposed to all the cold biting winds and rains of the Atlantic, the young plants have a grim struggle for existence through the long cold winter months.

Only the vigorous survive, and what a picture robust health they present. Strong, sturdy, short-jointed growths like whip-stocks (not like whip lashes), leaves like leather, and roots a regular mat of fibre.

Now you'll agree there is a difference, a vast difference between Bees' Rose Trees and the other kind.

Write for catalogue **NOW**. Lest you forget.

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BULBS

GIVEN AWAY

ONE WEEK ONLY

25 LARGE SIZE TULIPS GRATIS IN EVERY 5/- ORDER. ALL ORDERS OF 5/- CARRIAGE PAID.

Customers please note that I pay carriage on 5/- orders. Customers wishing to pay their own carriage, I will allow 2/- in £ and pack them and put free on rail.

48-page Catalogue Free.

DAFFODILS—1st Arrival, Cheap.			
Emperor, large trumpets, picked	12	100	1,000
Barri conspicuus, picked bulbs	6d.	3/6	30/-
Barri conspicuus, planting bulbs	4d.	2/-	15/-
Prinsep, Irish Daffodils, picked	—	1/-	7/6
Prinsep, Irish Daffodils, planting	4d.	2/-	15/-
Trumpet Daffodils, mixed	—	1/-	7/6
Trumpet Daffodils, mixed, planters	3d.	1/6	12/-
Trumpet Daffodils, mixed, planters	—	1/-	7/6

HYACINTHS.			
Bedding or Pots, finest mixed	100	1,000	
Hyacinths, named	7/-	69/-	
Tulips, best mixed	12/-	110/-	
Tulips, Double, mixed	1/6	13/-	
Snowdrops, Giants	2/-	18/-	
Narcissus, Trumpet, mixed	1/-	9/-	
Barri Tulips, mixed	1/6	12/6	
Barri Tulips, mixed	3/-	27/6	

FLOWERS AT CHRISTMAS.			
Early White Italian Hyacinths	12	100	
Alliums, Neapolitanums	2/-	16/-	
Freesias Refracta Alba	4d.	2/6	
Narcissus Totus Albus, early	6d.	3/6	
Narcissus Totus Albus Grandiflora	6d.	4/-	
Early Narcissus, Double Romans	1/-	6/-	
Early Narcissus, Double Constantine	8d.	5/-	
12 Early Hyacinths, 12 Totus Albus Grandiflora, 12 Double Romans, 12 Freesias Refracta Alba, 12 Allium Neapolitanums, 12 Giant Snowdrops, 12 Grand Monarque. Lot, 4/6, free.	1/-	6/-	

SCILLA SIBIRICA—Lovely Blue.			
Extra large, top size	12	100	1,000
Second size, good flowering bulbs	6d.	3/6	35/-
Second size, good flowering bulbs	4d.	2/6	20/-

ENGLISH IRIS. ENGLISH IRIS.			
I have a very fine mixture, from named sorts, and now offered, 1d. each; 12, 8d.; 100, 5/-.			

CROCUS—Very Scarce.			
Separate colours	100	1,000	
Crocus, in separate colours, 5 1/2 in.	1/3	12/-	
Crocus, named sorts	1/6	15/-	
Low Crocus, bedding size	2/6	25/-	
Low Crocus, bedding size	1/3	12/-	

DARWIN TULIP.			
Lara Butt, the finest of all Darwin Tulips, soft delicate rose, a flower of remarkable beauty, each, 2d.; 12, 1/-; 100.			

COLLECTIONS.			
COLLECTION A.—100 bulbs for 1/-; postage and packing, 1d.; 500 for 5/6. Tulips, Superfine mixed; Iris Hispanica; Poor Man's Orchid, French Ranunculus, Daffodils, Narcissus, Sparaxis, Ixias, Cape Bulbs, Snowdrops, Single Anemones, Windflowers, Crocus, mixed colours.			
COLLECTION B.—1/-, for greenhouse. 3 Hyacinths for pots, 6 Single Tulips, 6 Double Tulips, 6 Daffodils, mixed trumpets, 6 Polyanthus Narcissus, 6 White English Iris Mont Blanc, sold at more than the 1/-. The lot 1/-; postage and packing, 4d.; 6 lots, 5/6.			
COLLECTION C.—30 bulbs for 1/-. English Iris mixed, Giant Snowdrops, Single Tulips, Superfine mixed, large trumpet Daffodils, Scillas Sibirica Lovely Blue. 50, in sorts, 1/-; packing and carriage, 4d.; 5 lots for 5/6.			
COLLECTION D.—1/-. 30 Tulips, in 6 colours, white, yellow, scarlet, red and yellow, red and white, and rosy pink, for garden or greenhouse. 30 Tulips, 6 colours, for			
COLLECTION E.—1/-. Hyacinths for pots and borders. Named Hyacinths, in 8 different varieties, 1/-.			
COLLECTION F.—6 named Hyacinths, pots or glasses, 1/-, 6 varieties.			
COLLECTION G.—1/-. 50 bulbs, for graves, all white: Iris, Tulips, Snowdrops, Anemones, Double White Narcissus. 50 bulbs, in 5 sorts, all white, for 1/-.			

PÆONIES CHINENSIS.			
Extra fine imported clumps, mixed, 3d. each	12	for	2/6.

52 Bulbs—My Special Collection, £1.			
FOR OUTDOOR AND INDOOR CULTIVATION.			
Fine named Double and Single Hyacinths, for pots and borders; 24 fine Border Hyacinths; 50 finest Double and Single Anemones; 50 Blue Crocus, for borders; 50 White Crocus, for borders; 50 Striped Crocus, for borders; 50 Yellow Crocus, for borders; 100 Jonquils, for borders; 100 Border Narcissus; 10 Double Daffodils; 100 Polyanthus, mixed sorts, for pots; 50 fine Mixed Ranunculus, for borders; 100 fine Snowdrops, for borders; 0 fine named Single Tulips, of sorts; 50 fine named Double Tulips, of sorts; 100 Scilla Sibirica; 200 Spanish Iris.			
The above quantity, 11/-.			
One-fourth, 6/6. 6 Lots for £5.			

Snowdrops, picked	12	100	1,000
Snowdrops, monsters, like Jonquils	3d.	2/-	17/6
Chionodoxa Lucilla	6d.	4/-	40/-
Cyclamen, hardy	6d.	3/6	35/-
Cyclamen, hardy	6d.	15/-	140/-

CHOICE COLLECTION OF BULBS.			
FOR SPRING AND SUMMER FLOWERING.			
The liberal quantities offered in these collections can only be supplied by having large numbers prepared at the commencement of the season; it is therefore respectfully intimated that no substitution or alteration can be allowed.			

My Wonderful 2/6 Introductory Collection of 144 Bulbs.			
12 Mixed Hyacinths, for pots or beds; 12 Mixed Tulips, single, extra fine; 12 Pheasant Eye Narcissus (the Poet's Narcissus); 12 Iris Hispanica (the Poor Man's Orchid); 12 Anemones (Wind Flowers), in fine mixtures; 12 Ranunculus, the French variety, large flowering sorts; 12 Crocus, in fine mixtures; 12 Grape Hyacinths, lovely blue, nice for pot or garden; 12 Sparaxis, the earliest spring flower; 12 Jonquils, sweet scented, bright yellow; 12 Snowdrops, purest white; 12 Ixias, Cape Flowers, very pretty. This superb collection of the finest imported bulbs, the lot for 2/6.			

NARCISSUS AND DAFFODILS.			
Telemonius plenus, monster bulbs	12	100	1,000
Empress, large trumpets, large	1/-	8/-	75/-
Empress, large flowering bulbs	1/-	8/-	75/-
Horsfieldi, large flowering bulbs	6d.	3/6	35/-
Horsfieldi, monster bulbs	1/-	7/-	65/-
Golden Spur, best, monster bulbs	1/-	8/-	75/-
Sir Watkin, largest bulbs	1/-	8/-	75/-
Golden Spur, clear golden yellow	1/-	8/-	75/-
Mrs. Langtry, pure white, cup pale lemon	6d.	3/6	30/-
Mrs. Langtry, good flowering bulbs	4d.	2/6	20/-
Ornatus, the early flowering Poeticus	6d.	3/6	30/-
Ornatus, first size bulbs, extra	4d.	2/6	20/-
Prinsep, large bulbs, true	8d.	4/-	35/-
Trumpet Major, extra large	8d.	4/-	35/-
Pheasant Eye (Poet's Narcissus), sweet scented, true, Pheasant Eye Narcissus	3d.	2/-	17/-
Pheasant Eye, for planting (sack, about 1 cwt.), 12/6	1 1/2 d.	1/-	7/6
Grande, large golden yellow trumpet, white perianth, as large as Horsfieldi	6d.	3/-	27/-
Grande, for planting (sack, about 1 cwt., 20/-)	3d.	1/6	12/-
Incomparabilis, Cynosure, cupped Narcissus, white cup, bright orange and primrose	4d.	2/3	20/-
Cynosure, planters (1 sack, 16/-)	2d.	1/-	7/6
Incomparabilis, Figaro, cup golden yellow, fine for cutting or forcing	6d.	2/6	20/-
Incomparabilis, Figaro, planters	3d.	1/3	10/-

POET'S NARCISSUS ORNATUS.			
Broad paper white perianth, scarlet edge cup, picked, 12, 6d.; 100, 2/6; 1,000, 20/-.			
Bulbs for planting (sack, 25/-), 12, 2d.; 100, 1/-; 1,000, 7/6.			

DOUBLE INCOMPARABILIS, DOUBLE DAFFODILS.			
Full rose-shaped, orange-yellow flower, fine for cutting	12	100	1,000
Ordinary size, for planting (sack, 16/-, about cwt.)	6d.	3/6	30/-
Double Daffodils, Telemonius plenus, true golden-yellow Daffodil	2d.	1/-	7/6
Small size, for planting	6d.	3/6	30/-
Sulphur Phoenix, Codlin and Cream, double silver Daffodil	4d.	2/-	20/-
Double White Narcissus, gardenia-flowered, fine for cutting	6d.	3/6	30/-
Bulbs for planting (per sack, 16/-)	4d.	2/6	20/-
Bulbs for planting (per sack, 16/-)	2d.	1/-	7/6

SWEET-SCENTED QUEEN ANNE JONQUILS.			
Campanelle, sweet-scented, 12, 4d.; 100, 2/6; 1,000, 20/-.			
Campanelle, for planting, 12, 1 1/2 d.; 100, 1/-; 1,000, 7/6.			

ORANGE PHOENIX, white flower, with deep orange heart, popular for bedding, 12, 6d. ; 100, 3/6 ; 1,000, 30/-. Orange Phoenix, planters (sack, 25/-), 12, 3d. ; 100, 2/- ; 1,000, 17/6.

RANUNCULUS, French, Persian, and Turban	12	100	
ANEMONE ST. BRIGID, mixed	3d.	1/9	
ANEMONE FULGENS, well known	1/-	6/-	
ANEMONE DE CAEN, large French	1/-	6/-	
SPANISH IRIS, mixed	1/-	6/-	
CHIONODOXA, Lucillea and Sardensis	2d.	1/3	
CHIONODOXA, Lucillea and Sardensis	4d.	2/6	
ENGLISH IRIS, named sorts	Each	12	100
ENGLISH IRIS, named sorts	3d.	2/6	20/-

CHINESE SACRED LILIES	Each	12	100
CROWN IMPERIALS	6d.	5/-	
CROWN IMPERIALS	6d.	5/-	
First size Hyacinths, named, for pots or glasses, 12, in 12 sorts, for 2/6; 100, 20/-; 1,000, 195/-.			
Second size Hyacinths, named, 12, in 12 sorts, 1/9; 100, 14/-.			
100,000 Hyacinths, 12, in 6 colours, 1/6; 100, 10/-.			
Hyacinths, mixed, all colours, 12, 1/-; 100, 8/-.			

DAFFODILS, SCARCE.			
Obvallaris	12	100	
Obvallaris, planters	6d.	2/6	
Sweet-scented Jonquils	3d.	1/6	
Campanelle, for planting	4d.	2/6	
Campanelle, for planting	1 1/2 d.	1/-	

NARCISSUS COLLECTION, No. 2.			
Bicolor Grandis (Grandis), perianth pure white, large and finely imbricated trumpet, very large full yellow; the finest of the Bicolors.			
Barri conspicuus, large broad-spreading, perianth yellow, broad, short cup, conspicuously edged bright orange-scarlet.			
Orange Phoenix, large double white, with rich orange-scarlet in centre.			
Trumpet Major, golden-yellow trumpet and petal, free for forcing.			
Telemonius Plenus, double golden-yellow.			
This collection of 2, each, 12 for 6d.; 24, 1/-; 48, 2/-; 100 3/6; 1,000, 30/-.			

BULBS AT 1/- LOTS.			
50 Tulip, Artus	1/-	50 Double Tulip, mixed	1/-
50 Tulip, Rose Gris de Lin	1/-	50 Artus Tulip	1/-
50 Keizer Kroon	1/-	50 Chrysolora Tulip	1/-
50 Cottage Maid	1/-	100 Daffodils, mixed	1/-
50 Golden Crown	1/-	100 Narcissus	1/-
50 La Reine	1/-	100 Snowdrops, giant	1/-
50 Salvator Rosa	1/-	12 White Hyacinths	1/-
50 White Swan	1/-	12 Light blue do.	1/-
50 Rosemina Huykema	1/-	12 Dark blue do.	1/-
50 Herman Schlegel	1/-	12 Pink do.	1/-
50 Pottebakker White	1/-	12 Red do.	1/-
50 Pax Lato	1/-	12 Creamy-white do.	1/-
50 Crimson King	1/-	12 Narcissus in 6 sorts	1/-
50 Coleur Cardinal	1/-	24 Hyacinthus La Peyrouse	1/-
50 Princess Marian	1/-	24 do. Regulus	1/-
50 Rachel Ruisch	1/-	24 do. Lord Derby	1/-
50 Rembrandt	1/-	24 do. Moreno	1/-
50 La Immaculé	1/-	24 do. Tabrole	1/-
50 Due Maxima	1/-	24 do. King of Blues	1/-
50 Blanche Hotine	1/-	24 do. Chas. Dickens	1/-
50 Emperor Rubrum	1/-	24 do. Gertrude	1/-
48 Barri conspicuus	1/-	24 do. Baron V. Thol	1/-
24 Emperor, large trumpet	1/-	24 do. Agnes Christie	1/-
12 Hyacinths, mixed	1/-	24 do. Czar Peter	1/-
50 Scilla sibirica	1/-	24 do. Roi des Belges	1/-
50 Single Tulip, mixed	1/-	24 do. La Innocence	1/-

4d. Lots. SPECIAL OFFER. 4d. Lots. SMALL LOTS FOR POTS, BORDERS, OR FIBRE GROWING.			
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12 Tulips, best white	4d	8 Polyanthus Narcissus	4d
12 Tulip, best yellow	4d	6 Paper White Narcissus	4d
12 Tulip, best pink	4d	6 Double Roman Narcissus	4d
12 Tulip, best red	4d	2 Named Hyacinthus	4d
12 Tulip, pink and white	4d	12 Scilla sibirica	4d
18 Tulip, all colours	4d	12 Crocus, any colour	4d
3 Hyacinthus, any colour	4d	24 Mixed Daffodils	4d
25 Snowdrop	4d	24 Mixed Narcissus	4d
8 Horsfieldi Daffs.	4d	2 Hardy Cyclamen	4d
8 Emperor	4d	4 Ranunculus asiaticus	4d
12 Allium neapolitanum	4d	2 Ornithogalum Star of Bethlehem	4d
2 Autumn Flowering Crocus	4d	2 Panchratium maritima	4d
12 Artus Tulip	4d	1 Amaryllis Belladonna	4d
15 Rose Gris de Lin Tulip	4d	12 Iris from Italy, Alata	4d
20 La Reine Tulip	4d	12 Iris from Italy, Stylosa	4d
12 Soleil d'Or Narcissus	4d	25 Cynosure Daffodils	4d
12 White Pearl Poly. Narcissus	4d	25 Pheasant-eye Narcissus	4d
15 Double Daffodils	4d	25 Poeticus Ornatus	4d
15 Empress Daffodils	4d	25 Princep Daffodils	4d
15 Emperor Daffodils	4d	25 Barri conspicuus	4d
30 Ixias	4d	25 Jonquils	4d
6 Hyacinthus, mixed	4d	20 Double Incompara.	4d
20 Parrot Tulips	4d	50 Snowdrop	4d
2 Lilium candidum	4d	30 Grape Hyacinthus	4d
12 Dog Tooth Violets	4d	25 Freesia Ref. alba	4d
12 Sparaxis	4d	15 Silver Phoenix	4d
		20 Double White Narcissus	4d

AMARYLLIS BELLADONA MAJOR.—Extra flower, huge silvery-rose cup, fragrant, outside in sunny position, south wall, or pots, monster bulbs. Each, 5d.; 12, 4/6.			
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Top Quality at Bottom Price.			
Soleil d'Or, deep yellow	12	100	
Soleil d'Or, planters	1/-	6/-	
Grand Primo, white citron	4d.	2/6	
Grand Primo, planters	9d.	4/-	
White Pearl, white	3d.	2/-	
White Pearl, planters	9d.	4/-	
White Pearl, planters	4d.	2/6	

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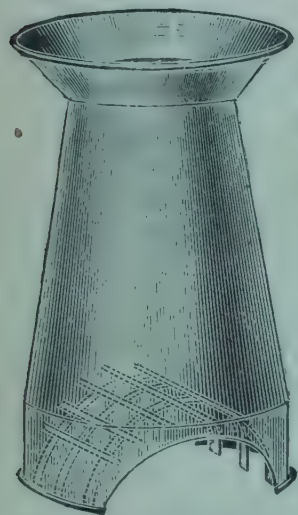
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quickly reduced to Ashes, than
which there is nothing better as
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Height 41ins. Weight 37lbs.

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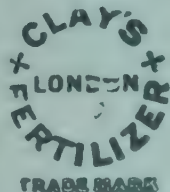
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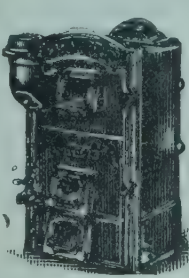
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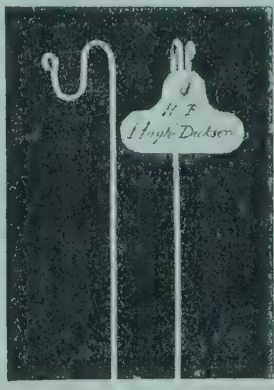
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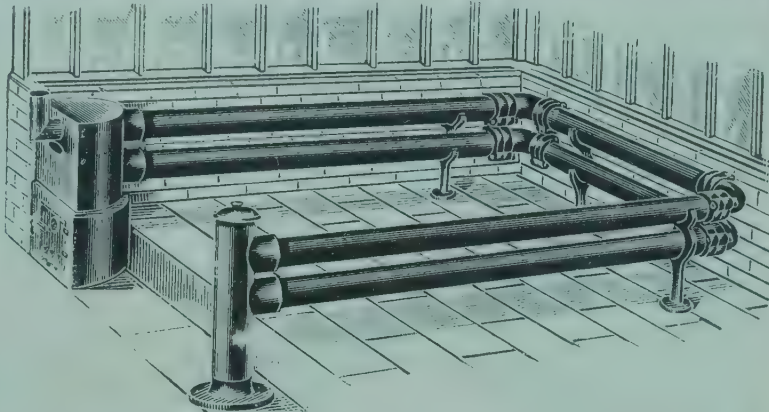
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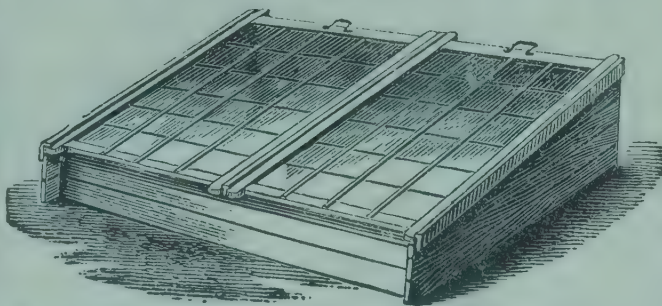
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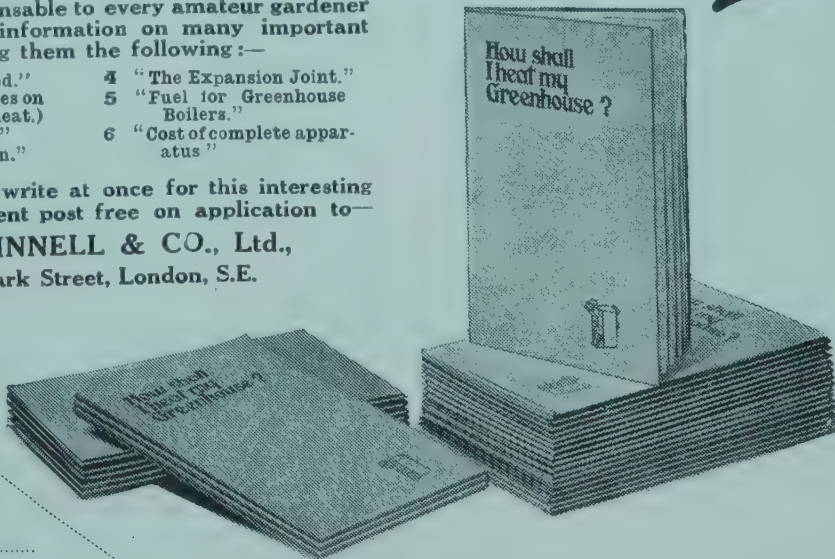
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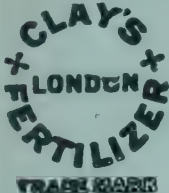
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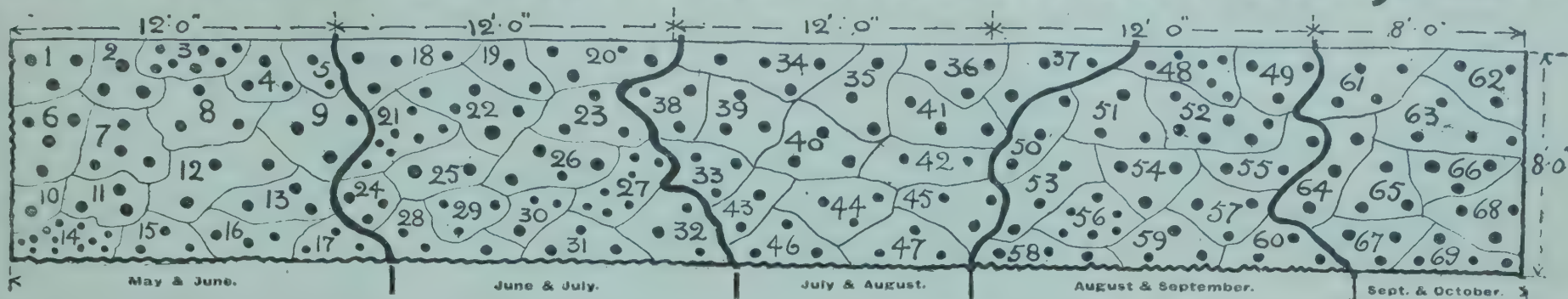
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THE GARDEN.

No. 2136.—VOL. LXXVI.

OCTOBER 26, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.

NOTES OF THE WEEK.

Tobacco Plants and Earwigs.—So many people, particularly amateurs, refrain from growing Dahlias owing to the association of these flowers with earwigs. We have heard lately of a novel way of keeping the dreaded pest at bay. There is something objectionable to earwigs in the Tobacco plant as grown, says a careful observer, and if these plants are interspersed among Dahlias there will be little fear of the presence of this troublesome pest. We give this suggestion for what it is worth, not having experimented in this direction.

Apple Warner's King for Marketing.—The wonderful exhibit of Apples shown in the market-growers' class by Messrs. Gaskain and Whiting of Faversham at the recent show of British-grown fruit provides ample proof, if such were needed, of the excellence of home-grown fruit. The large basket of Warner's King illustrated on page 536 of the issue October 19 was perhaps the pick of this creditable display. We learn that the fruits were gathered from trees sixteen years old, and that 100 trees have averaged 1,500 bushels in the past three years. Twenty-seven of the fruits in the illustration referred to would fill a bushel basket.

Two Useful Greenhouse Flowers.—Two very pretty Abutilons may be seen in full flower at the present time in the greenhouse at Kew, where they occupy positions on the roof. One, Golden Fleece, is a variety of garden origin which is admirable on account of its clear yellow, shapely flowers; these are borne in great profusion over a period of several months. The other, A. insigne, is a species from Colombia which was introduced many years ago, but whose cultivation has been allowed to lapse except in a few gardens. Of vigorous growth, it is admirably suited for the roof of a glass-house, for its lateral branches assume a graceful, pendent character, and the pretty reddish flowers, with their heavily-netted veins, are suspended from long, slender stalks. Both these Abutilons require to be cut back well in spring, so that a good supply of new wood is formed.

A Good Outdoor Chrysanthemum.—Among a number of early-flowering Chrysanthemums that we have grown this year, none has given us more pleasure than a single pink variety. This was sent to us two years ago as a seedling by Mr. D. B. Crane. The plants attain a height of about three feet, branch very freely, and the flowers are produced in great profusion. For cutting it is ideal, a single spray in a vase being particularly pleasing. Our plants have been in flower a month and promise to continue for another fortnight, owing to the fact that the buds do not all open at once. The prominent yellow disc in the centre of the flower is surrounded by a very narrow band of white, the rest of the petals being a pleasing shade of pink. It is

very fragrant. Mr. Crane informs us that he has named it Eric Harvey.

A Useful Rock Garden Plant.—Anthemis Trumfettii is probably the richest-coloured of its set, the golden yellow flower-heads making quite an effective display even so late as mid-September and after a naturally long season of flowering. Dwarfed and superior in every way to A. tinctoria E. C. Buxton, it is a plant to remember for the choice herbaceous border or in the more conspicuous places of the rock garden, where it will be seen to advantage.

Crocus nudiflorus.—This is one of the boldest and showiest in its day of the earlier of the autumn-flowering Crocuses, a species well worthy the attention of those who indulge in grass gardening, or who by hook or by crook could squeeze such things into the quiet, sequestered places of the rock garden. Well established, the large flowers are fully 9 inches or so high, and in reddish violet tones are rendered the more conspicuous by the rich orange stigmata characteristic of this kind. A few of its flowers in sunlight are most attractive.

Waterer's Scarlet Oak.—This Oak (Quercus coccinea variety splendens) is the best of the family for rich autumn colour. It is not only richer in colour, but while some Oaks only colour well in certain seasons, the subject of this note may be relied upon to colour well every autumn. In summer the tree does not differ materially in leaf from the North American Scarlet Oak, but in autumn there is no comparison, the large lobed leaves of Waterer's Oak being much richer and deeper red. As it is a large-growing variety, it is worth considering as an avenue tree, single specimens in the pleasure grounds, or a group of six to ten trees for effect in the park.

The Cotton Lavender for Dry Banks.—It does not appear to be generally known that the Cotton Lavender (Santolina Chamæcyparissus) is one of the best low-growing plants for clothing dry banks. In such a position it spreads rapidly, and quickly covers a considerable area with a close mass of silvery foliage, while it has the advantage of being very little trouble. Cuttings dibbled into sandy soil in a close frame root with ease, and if planted for one year in a nursery or kitchen garden border, plants quite large enough for permanent planting may be obtained. These, if placed 18 inches apart each way, quickly cover the intervening space, and the only trouble they occasion for many years is an annual cutting over to encourage young shoots from the base. All the preparation the ground requires for the reception of the plants is to dig it over 9 inches or 12 inches deep if the soil is fairly good, or, if poor, to add a few inches of decayed leaves or manure and then dig it over.

ROGUES IN SWEET PEAS.

SOME IMPORTANT DISCOVERIES.

EVER since the Sweet Pea Countess Spencer was put into commerce, now some ten or more years ago, the question of rogues appearing in Sweet Peas has exercised the minds of those who make it their business to supply the public with seeds, and also those of the public who grow the flowers. Stocks which seedsmen have had perfectly true in their own trial grounds have, the following year, produced a large number of rogues, a fact that could only be partly accounted for. Owing to the widespread and generally-accepted belief that a Sweet Pea flower is always self-fertilised, and that bees or other insects did not effect cross-fertilisation, this question of rogues appearing in what were regarded as true stocks was, as we have already stated, difficult to explain.

In our issue for August 24, page 423, we gave particulars of some investigations which we had made in connection with Sweet Pea seeds that had been grown in California, and stated that we had come to the conclusion, for reasons we plainly set forth, that the appearance of rogues in such well-known and, in ordinary circumstances, fixed varieties as Clara Curtis and Etta Dyke was due to cross-fertilisation.

At the conference of members of the National Sweet Pea Society, held at the Hotel Windsor after the annual meeting on Thursday of last week, this was fully borne out by Major C. C. Hurst, F.L.S., Director of the Burbage Experiment Station, Leicestershire. Major Hurst is a well-known and recognised authority on Mendelism, and has conducted numerous experiments with Sweet Peas as well as with other flowers. In his most interesting paper that he read at the conference he made it quite clear that the majority of the rogues that appear in a stock of Sweet Peas the second year, and what are known as recessive colour rogues, are to a great extent due to cross-fertilisation by some outside agency, and that this cross-fertilisation occurs in this country on a rather large scale, though not to so great an extent as it does in California. The agency most largely responsible for this cross-fertilisation in this country is considered by Major Hurst to be the leaf-cutter bee, which carves the semi-circular pieces out of the leaves of our Rose bushes, though weevils and blue tits were also considered to be possible agents.

It would seem, however, that the rogues due to various causes can be almost eliminated by breeding Sweet Peas on Mendelian lines as, when this is done, not more than five rogues per thousand are given, none of which are type rogues or recessive colour rogues, the five being all what are known as dominant colour rogues. In ordinary commercial stocks of Sweet Peas tested by Major Hurst, and which were not, of course, obtained by an application of Mendel's laws, one hundred and eight per thousand were rogues; while in the National Sweet Pea Society's trials conducted at Burbage, one hundred and fourteen per thousand rogues were found. In these instances many of the rogues were contrary to type, *i.e.*, instead of having the open keel that characterises the Spencer Sweet Peas, they had clamped or united keels. The complete removal of such type rogues would render the remaining stock perfectly true so far as type was concerned, and thus one evil would be eliminated. The dominant colour rogues, which always show the first year, could also be removed and thus got rid of; but the recessive

colour rogues, providing cross-fertilisation had been effected, would appear the following year. Constant vigilance is, therefore, necessary to reproduce any variety of Sweet Pea true year after year.

Naturally, a paper of this kind was of a highly technical character, but the importance of Major Hurst's revelations can scarcely be overestimated. Not only do Sweet Peas give us considerable joy in the garden and home; the growing of seeds in this country is now a large industry, providing employment for many thousands; and anything that will enable raisers to put stocks on the market that will not give more than five rogues per thousand will be of inestimable value. The whole of Major Hurst's paper, with the most salient points of the discussion, will be published in the National Sweet Pea Society's Annual, which will be worth buying for this feature alone.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Bracken on Victoria Embankment.—On the north side of the Victoria Embankment wall,



MR. E. BECKETT, V.M.H., HEAD-GARDENER
AT ALDENHAM HOUSE, ELSTREE.
(See page 541.)

facing Northumberland Avenue, may be seen some small specimens of Fern (*Pteris aquilina*) growing on the east side of the Bazalgette mural monument.—P. CLEMENTI-SMITH.

Tulipa primulina.—It is not quite fair that the primrose yellow form of *T. strangulata*, page 532, October 19 issue, should be called *T. primulina*, as there is a very distinct species described by Baker under that name. It is figured in t. 6786 of the *Botanical Magazine*. It is rather like an enlarged *T. biflora*, and has narrow leaves and slender stems, sometimes bearing more than one flower. It is much more suitable for the rock garden than any form of *T. strangulata*. It was discovered by Mr. Elwes in the Aures Mountains in Eastern Algeria in 1882.—E. A. BOWLES.

Crab Apples as Ornamental Shrubs.—I was much interested in one of the leading notes on Crab Apple Veitch's Scarlet in the issue for October 12. I have had no experience of the variety named, but, judging from the description given in the note referred to, it is a beautiful one, and should have a prominent place in gardens. In Mr. Rolls' garden at Arcadia, Bournemouth, Crab Apples are made good use of in the borders, being grown among the shrubs, where their highly

coloured fruits show to great advantage. The variety John Downie has done remarkably well so grown. The trees are trained as slender pyramids, and they have been covered with fruits almost from base to top.—G. G.

New Market Chrysanthemums.—Among the smaller exhibits at the fortnightly meeting of the Royal Horticultural Society on the 8th inst. was that of market Chrysanthemums from Messrs. Cragg, Harrison and Cragg, Heston, Middlesex, yet because of their freshness and fine quality it was also one of the most attractive. There were several vases, each containing about a dozen flowers with nothing but their own good attributes to recommend them, though these were all-sufficient in the circumstances. The new single-flowered Celia (illustrated on page 539), of rich golden yellow, was particularly good and striking in colour and get-up, and well deserved its award of merit. H. W. Thorpe, a fine incurved white, was superb, its crisp petal denoting good keeping qualities. Cranford Yellow and Cranfordia (yellow) were very fine. Phoebe was excellent in mauve pink. The greatest colour novelty, however, was seen in Juliet, a decorative variety of dull reddish walnut tone, quite unique in its way.—E. H. J.

The Twelve Best Climbing Roses.—I think that possibly even a rosarian would accept a "dressing" from such an acknowledged authority as Mr. Herbert E. Molyneux. I asked for the opinion of others as to my selection of the twelve best climbing Roses, and therefore gratefully accept Mr. Molyneux's criticism. But I think I hardly deserved Mr. Molyneux's caustic remarks as to the failure of many of my selected twelve to comply with my conditions, for reference to my previous notes (*THE GARDEN*, September 21, 1912) will show that I was fully aware of that fact. I am much obliged to Mr. Molyneux for naming three climbers unknown to me, and I will certainly procure those which he so strongly recommends. I wish I could evince my friendly feeling by sending Mr. Molyneux a plant or two of Marie Bret; but as I have only three plants of that lovely Rose, and they were presents, I must content myself by merely stating that they were procured from P. Nabonnand. I must hurriedly conclude by reciting in its more correct form Mr. Molyneux's quotation, *De gustibus non est disputandum*, for I still prefer my list to his.—G. B. W.

Albino Forms of Geranium robertianum.—I am much obliged to your correspondents for their notes on white Herb Robert in response to my desire for information. Unfortunately, they have omitted to mention whether it was the red-stemmed or green-stemmed variety that they have found. I have frequently found colonies of the red-stemmed variety in wild conditions, but never the green-stemmed, and it was in order to ascertain whether the wild origin of this latter form was known that I showed the two forms at the meeting of the scientific committee of the Royal Horticultural Society. Similar forms exist of the white Ragged Robin (*Lychnis Flos-cuculi*). The red-stemmed one I found in the Norfolk Broads, after having kept an eye on the watch for it for many seasons when collecting Lepidoptera among the rosy masses of the type form. The green-stemmed was found in Cornwall, but is not nearly so strong a grower as the handsomer variety with red stems and calyx. In both plants, *Geranium* and *Lychnis*, the two forms breed truly from seed. The red-stemmed *Lychnis* gives a small percentage of pink flowers, but I have never known the *Geranium* to revert.—E. A. BOWLES.

Odontioda Charlesworthii.—During recent years many *Odontiodas* have appeared, but this is still one of the best in commerce. It was derived from the intercrossing of *Cochlioda noetzeliana* and *Odontoglossum harryanum*, and is deep blood red in colour. In size, shape and general habit the *Odontiodas*, such as the one just noted and *O. Bradshawiae* (*O. crispum* × *C. noetzeliana*), resemble *O. crispum*, and from a horticultural standpoint the scarlet *Odontoglossum* has arrived. This charming set will thrive if given the same treatment as Colombian *Odontoglossums*.—S.

New Zealand Shrubs.—I see *THE GARDEN* regularly, and am always keenly interested in the articles that appear therein. Especially of interest are any notes concerning *Maoriland* trees and flowers. I notice that a New Zealand shrub was awarded a prize at the big flower show recently. It is amusing to think that this shrub is one that is generally religiously weeded out where it appears in gardens here. Your paper described the flower as being crimson. Is it crimson or a very deep pink? I have seen the latter quite often, but never the former. The white *Manuka* is the most common. It grows all over the country here, particularly on poor lands. Standing on top of any rise, one can see it shimmering for miles. Sometimes the shrub grows to a considerable height, but the flowers are never plentiful when this is the case. In the public domain at Auckland there are preserved some fine specimens of old *Manuka* trees. — MONA MACKAY, *York Street, Parnell, Auckland, New Zealand.* [*Manuka* of New Zealand is correctly *Leptospermum scoparium*. It is regarded as a troublesome weed in some parts of New Zealand, but is, of course, very showy, and is grown here, more especially in gardens of the South-West, as an ornamental flowering evergreen. The new *Leptospermum Nicholii*, which won the cup for the best new plant at the recent International Show, is probably not the plant referred to by our correspondent, but a richer-coloured form of that or an allied species. Apparently some New Zealanders use the name of *Manuka* for all the species of *Leptospermum*, although some authors use it more particularly in connection with *L. scoparium*. The native name of *Kahi-Katoa* has also been applied to it.—ED.]

FORTHCOMING EVENTS.

October 29.—National Chrysanthemum Society's Show at the Crystal Palace (three days). Kent Commercial Fruit Show at Maidstone (two days).

October 30.—Kent County Chrysanthemum Society's Show (two days). Borough of Croydon Chrysanthemum Show (two days).

October 31.—Torquay Chrysanthemum Show.

November 1.—Hinckley Chrysanthemum Show (two days). Enfield Highway Chrysanthemum Show.

November 2.—Brighton Chrysanthemum Show (two days).

THE ROSE GARDEN.

NOTES ON NEWER ROSES.

HYBRID TEAS.

(Continued from page 529.)

Claudius (B. R. Cant and Sons, 1910).—This is one of the Hybrid Teas that might have been found in the Hybrid Perpetual class, I should imagine, without any injustice being done. It is an excellent Rose, Hybrid Perpetual-like in growth and flower, colour deep rose self throughout of almost uniform character, of good shape, and the flowers are carried erect on good footstalks. It requires thinning, but is quite up to exhibition standard if this is done. Another good point in its favour is its scent, and I see it figures in the raisers' current

effect; the colour-scheme reminds one of the older Dr. Campbell Hall, but is, I think, even more pleasing. It has been awarded the gold medal of the National Rose Society, and, with good cultivation, produces a fine flower, but (why is there nearly always a "but"?) it is thinnish and must be cut just right. A good flower. It is one of the most beautiful of Roses.

Cynthia (William Paul and Sons, 1909).—A pale lemon yellow, nearly white, leaning largely to the Tea side of its parentage; of rather unusual shape, which can be described as globular rather than pointed, but none the less pleasing for that. We do not want all our Roses to be after one pattern. Good in autumn, with plenty of petals, and a fair grower.

Coronation (Hugh Dickson, 1912).—I have not yet received a copy of this firm's catalogue, so cannot be sure whether they are sending out this magnificent Rose this season or not, but I would rather not run the risk of leaving it out in case they may be distributing it this year. It is entitled to be called one of the best of the new Roses of 1912, and one can hardly speak too highly of it. I first saw it at the "National" at Regent's Park this year. There it won first prize in a very strong class of baskets for any white or pink, beating some very fine *Druschkis* in the process. The basket was removed to take its place as an exhibit in the class for new seedling Roses, and, as a consequence, upset some of the reports of the show. One gentleman of the Press, overlooking the fact that there might have been a first awarded, proceeded to lecture the judges for only awarding a second to a basket of *Frau Karl Druschki* that was the "finest he had ever seen, and should have been an easy first," &c. In that unaccountable way which cannot be easily explained, it did not catch the eye of the judges of the new seedlings at the "National" sufficiently to obtain an award. At Belfast, however, although I do not think it was a bit better exhibited, it obtained the gold medal, and, undoubtedly deserved it. Most Roses have to come up twice before they secure a gold medal, unless they are particularly striking, such as *Irish*



THE NEW CHRYSANTHEMUM CELIA. A SINGLE VARIETY WITH RICH GOLDEN-YELLOW FLOWERS.

catalogue at the moderate price of 1s.; so those exhibitors who have not grown it should give it a trial.

Comtesse Icy Hardegg (Soupert et Notting, 1908).—A very bright carmine of good shape and growth that, if freely disbudded, will give quite a good flower. It has done very well with me during the past season; it has plenty of petals and it stands well when cut. The colour does not seem to fade so rapidly as is the case with most carmine varieties. A Rose that has been somewhat overlooked.

Countess of Shaftesbury (Hugh Dickson, 1911).—This is a very beautiful colour, not easy to describe—silvery carmine, with a lighter shade at the edge of the petals that heightens the general

Fireflame, *Rayon D'Or*, or *George Dickson*, and *Coronation*, fine Rose that it is, was no exception. Afterwards, as seen growing at Belmont, it was manifest that no mistake had been made in this case. To adequately describe the flower is not easy. Here again we break away from the high-pointed centre, and *Coronation* is more of the type of *Mrs. Cornwallis-West*, or, to name a better-known but not a better Rose, *Her Majesty*. It is a delicate pale pink in colour, very large. I saw flowers as big as the closed fist of an ordinary mortal. No fault is to be found with its growth. The Rev. J. H. Pemberton was much enamoured with it at Belfast. Whether it goes out this season or not, all exhibitors should make a note of *Coronation* and be sure that they get it, as there is

another Coronation on the market—a pretty wichuraiana of Turner of Slough—that may lead to confusion.

Duchess of Normandy (P. Le Cornu, 1912).—A yellow sport from Dean Hole, exhibited by the raiser at Southampton this year, where it received a card of commendation and might, perhaps, have had a higher award. I was very pleased with it, and I think, due allowance having been made for the Jersey soil, and, further, the Jersey climate, with its almost perpetual sun, preventing that slow development of the bud which is so essential to produce the exhibition flower, it is a really promising sport that should do well in our English gardens. A yellow Dean Hole hardly does justice to its colouring. It is not, at any rate, a yellow self, but has many shades of colour among its petals, salmon and gold predominating. Altogether a beautiful Rose that I expect to see in most exhibition boxes before we are much older. It is being distributed at 5s. each. Duchess of Normandy, by the way, is the Jersey man's title for Queen Mary.

Southampton. H. E. MOLYNEUX.

FLOWER GARDEN.

SWEET PEA NOTES.

A Moseley List.—During the last decade many old-established firms which had not previously devoted special attention to the cult of the Sweet Pea have come within the fold, either because their principals became enamoured of the Queen of Annuals or because it was thought that a little grist might be added to the mill. Why Hallams, Moseley, threw themselves so keenly into the Sweet Pea business I should not like to say definitely, but I do know that Mr. Arthur Hallam is one of the most enthusiastic men in the trade, and that there are few things in connection with it which he does not know, provided that they are worth knowing. This Moseley list is a modest one, and it does not comprise any of the firm's own novelties; but, as far as possible, all the finest varieties raised by others are listed, from Afterglow in the "A's" to Winsome in the "W's."

Edinburgh Sweet Peas.—There are doubtlessly several seed-houses in Edinburgh selling excellent Sweet Peas, but I dare venture to assert that the brain of every reader of THE GARDEN will picture the name of Dobbie when the heading of this paragraph is seen. In the old days it was Dobbie of Rothesay, but most of us have forgotten that the firm was ever located in that charming spot. The Edinburgh seed is grown in Essex, and the crop this season is a remarkable one, as well for excellence of quality as for abundance. No fewer than nine novelties are listed, and of these two have received

the award of merit of the National Sweet Pea Society, two others have secured the award of merit of the Royal Horticultural Society, while still one more was honoured at the Royal International Horticultural Exhibition—a record for one season of which any firm might well feel proud. There is, however, just one point more to add. Lady Miller is one of the two varieties reserved for the silver medal of the National Sweet Pea Society, provided that they behave themselves properly next season. It is an exquisite Sweet Pea that grows splendidly and produces plenty of fours. The colour is delicate apricot rose on

distinguished approbation of the King. It is the same colour as Lady Grisell Hamilton, but of Spencer form. Brunette is reddish mahogany; at least that is the nearest I can get to the colour. It is distinct and decidedly handsome, even if it has not quite the size of some of the modern giants. Old rose is the colour of Decorator, and it is well named, for it is admirable for the purpose indicated. It will be offered by more firms than one, but the name has met with general acceptance. Lavender George Herbert is Dobbie's special stock of a grand Sweet Pea. Mark's Tey is a weird mixture of maroon, rose, mauve and blue which does not

appeal to my particular taste; but this does not alter the fact that it is a fine bold flower of splendid form, produced by a plant which grows vigorously. Inspector is a duplex form of Earl Spencer, and must not, therefore, be exhibited at any show next summer where double standards are strictly taboo. In addition to these the firm offers all the finest Sweet Peas in general cultivation.

A Waterlooville Letter.—Mr. W. E. Alsen, Denmead, Hants, has not yet sent me a copy of his catalogue, but informs me that he will offer Annabel Lee, a distinct lilac which was shown at the "International"; A. A. Fabius, a superb cerise which has been seen before, but has not been satisfactory on account of lack of fixity; and Minnie Furnell, the shrimp pink which is such a warm favourite with the ladies.

HORACE J. WRIGHT.

AN ORNAMENTAL SYCAMORE.

(ACER PSEUDO-PLATANUS ERYTHROCARPUM.)

THE beauty of several Acers, Maples or Sycamores when laden with highly-coloured fruits has been very noticeable in Southern Counties during the present year. The hot summer and autumn of 1911 are no doubt responsible for the freedom with which the Acers have flowered and fruited this year. One of the best of these red-fruited kinds is that named above, which is a form of the common Sycamore. It is also sometimes known as A. van Volxemii variety erythrocarpum. Every branch of the tree was as heavily laden with fruits as the small spray illustrated. Some of



A FRUITING SPRAY OF ONE OF THE SYCAMORES. THE WINGED FRUITS ARE CRIMSON IN COLOUR.

cream. Dobbie's Scarlet is distinct and excellent; indeed, it is a colour by itself, and one which every grower will desire to have in his collection. The flowers do not burn. This firm's strain of Thomas Stevenson was the reserve for this year's medal, but it failed to realise expectations by throwing a rogue. It was hard luck, but does not alter the fact that the colour and form are alike superb, though, in my opinion, no better than those of other strains of the same variety that I have seen on occasions. True Lavender met with the

the long, drooping racemes measured a foot in length, carrying thirty to forty pairs of red fruits. Quite a lengthy list could be given of Acers with ornamental fruits. Three others especially worthy of note are the Pilgrim Plane (a form of the Sycamore), the Caucasian A. Trautvetteri and A. insigne (velutinum). These highly coloured and unique looking fruits make a most interesting feature in the woodland during the early autumn months, and for these alone the trees named above are well worth growing.

COLOURED PLATE.

PLATE 1457

ROCK GARDENS IN THE MAKING.

THE Editor has commissioned me to write a series of articles on a subject at once fascinating, popular and seasonable, and in such a manner as to afford the general reader some idea of how to get to work and the possible, or very highly probable, results of his labours. Just what the results prove to be will be very much a question of space, of the desires of the individual operator, and not a little, naturally, upon ways and means.

Be the space never so circumscribed, however, or ways and means ever so limited, there should exist in the mind's eye, at least at the start, some sort of ideal—some finality—to which it is desired to attain. Whether this is so in the case of Sir Frank Crisp—the greatest apostle of rock gardening this, or probably any other country, has ever known: his creations at Friar Park have been described as the noblest example of rock gardening outside the Alps themselves—I do not know, since on making enquiries as to where the end was likely to be, the eye was directed to a certain boundary limit where it was intended to stop "for the present." To reach even that provisional boundary, however, the operators have yet to cover an acre or more of ground to bring into position and to render available and congenial for alpine vegetation a few more thousand tons of rock, so welding them together and furnishing them as to constitute one great imposing flank of a still greater, more imposing whole.

Obviously, then, all our rock gardens cannot be of this kind, though they may, one and all, if rightly constructed and fittingly planted, afford pleasure by their presence, while adding variety and charm to our gardens. Those whose privilege it has been to see the wonderful rock garden at Friar Park in the heyday of its summer glory will not require to be told of its beauty, its naturalness, or the wealth of picture-making subjects it contains. Those who have not will be able to get a glimpse of a small portion of it from the coloured plate which is published with this issue. For the rest—the acres of it and the thousands of tons of rock—the reader must for the moment rely on the imagination. To all, however, should be very clear the style of arrangement and the method of furnishing, while the wedding of rock with alpine and alpine with rock is so strong a feature of the picture that it is not likely to be overlooked by those interested in such matters. To render the matter more generally helpful, however, I hope to direct attention to, and drive home if possible, some of the object-lessons this famous garden teaches, since the principles adopted—the essentials in the case—are applicable to all rock gardens, small and large alike.

The Object of the Rock Garden.—Primarily it should exist for the betterment, both as regards display work and cultivation, of that great mass of mountain plant-life we know as "alpine."

If it fails in these, it fails also in its mission, and might as well be non-existent. In some degree it has, of course, to be admitted that rocks are not essential to the cultivation of many alpine plants, the more vigorous of them, and those of the upland pastures in particular, not infrequently constituting the verdure at one's feet and unassociated with rock. At higher elevations rock and alpine are more general, and, higher still, the one would appear inseparable from the other. It is to these latter that rocks are more or less essential, and to which the richer soils of the garden are not infrequently unsuited because of the greater amount of humus they contain and their imperfect drainage. To such as these, then, the rocks become a sort of necessity. In other directions they are as a means to an end, and favour the bringing together into nutshell form a varied class of vegetable-life having much in common from the cultural standpoint. Quite

good effect. Not only are the plants disposed in a manner consistent with that obtaining in their native haunts, but they are also raised nearer to the line of vision, while separated from those greater dangers of soil, damp and insect-life which continually threaten and not infrequently overwhelm them when grown in the so-called "choice border," whatever that might be. These, then, are some among the more fundamental reasons for the presence of a rock garden on which to grow alpine plants.

E. H. JENKINS.

*(To be continued.)***GARDENS OF TO-DAY.****AUTUMN EFFECTS AT ALDENHAM HOUSE, ELSTREE.**

THE beautiful gardens and pleasure grounds at Aldenham House, Elstree, the country seat



BRIDGE OVER ORNAMENTAL WATER IN THE GARDENS AT ALDENHAM HOUSE.

naturally, this can only be done in a modified degree, since, after all, the rocks play but one part in the cultivation of the plant, although an important one. Away from their native haunts they are bereft of the pure, rarefied air of the mountain, the great elevation and, not least, that Nature-given mantle of snow which is one thing to them in winter and another in summer—a blanket to wrap them while asleep, and a generous supplier of moisture to them in their waking hours.

Notwithstanding these shortcomings, however, the vast majority of alpine plants are amenable to cultivation in British gardens on intelligent lines. It may be on elaborate ones such as those indicated by the coloured plate, or a miniature of them, where similar principles exist as the outcome of thoughtful and careful work from the start.

Then, again, among the foremost reasons which might be given for the presence of rocks is the fact that in no other way can these miniatures of mountain vegetable-life be displayed to such

of the Hon. Vicary Gibbs, are famous throughout the world, principally on account of the rich and varied collection of hardy trees and shrubs that is to be found there, and with which no one is more conversant than the enthusiastic owner, who is always glad to impart his wonderful knowledge to any enquirer. He is widely known as a great exponent of the art of pruning and planting especially, and also of the value of trees and shrubs for beautifying the landscape. The magnificent vegetables that are so well grown and exhibited by the well-known head-gardener, Mr. E. Beckett, V.M.H., whose portrait will be found on page 538, have also made these gardens famous. But in the space at our disposal it is impossible to adequately describe gardens and grounds of such spacious dimensions, and we will therefore confine ourselves to a few of the more important features that we noted when visiting the gardens during the early days of October.

The Michaelmas Daisies.—Although Mr. Beckett has been working for the improvement of these useful hardy flowers for many years, it is only during the last decade that the results of his labours have been brought before the public, and even now we doubt whether the average grower of herbaceous plants realises what a wealth of late autumn beauty is to be found in these much-maligned flowers. At Aldenham, Mr. Beckett has a large border devoted entirely to these, and the illustration on page 543, taken about mid-October, will give at least some idea of their gracefulness and charm, though it entirely fails to depict the many colour gradations and variable outlines that may be found among them.

This border is nearly one hundred yards long, and from 20 feet to 30 feet wide. It is filled mostly with forms of *Novi-Belgi* and *Novæ-Angliæ* for the background, with the small-flowered *ericoides* and *cordifolius* sections in the foreground. In common with most good cultivators of hardy flowers, Mr. Beckett is a firm believer in frequent division of the old plants, and his Michaelmas Daisies are lifted every year during January or February, the soil well and deeply dug and manured, the plants divided, and only the strongest portions replanted. It may be useful to give the names of a few of the best varieties that are to be found at Aldenham, and most of which can now be obtained from many plant nurseries. Among the large-flowered sorts, *Climax* stands out supreme. It is a tall-growing variety, attaining a height of 6 feet or more, and is later in blooming than some. But its blossoms are large and deep sky blue in colour, and may aptly be described as blue *Marguerites*. Mr. Beckett has a beautiful white-flowered seedling from *Climax*, but this is not yet in commerce. It is a gem among hardy plants, and is named *Avalanche*. *Amethyst* is a new one, with rather paler-coloured flowers, the petals of which are long and narrow and slightly twisted, this giving them a very charming appearance. *Attraction* is another large, blue-flowered variety of considerable value for cutting. A variety that particularly pleased us is *St. Egwin*. It has a compact, bushy habit, but the flowers are a delicate shade of rose pink, and it makes a superb feature in the border. *Sirius* is a delightful, tall, erect variety, with semi-double flowers of deep rose colour; for cutting it is ideal. Among the dwarf, early, *Amellus* section, Mr. Beckett has many good varieties, notably *Comet*, with large, deep blue flowers; and *Trumpeter*, with paler blossoms. In the small-flowered *ericoides* and *cordifolius* sections there are so many good sorts that it is difficult to make a selection. The following are, however, all excellent: *Simplicity* (pale lavender), *Perfection* (white), *Daydream* (white), *Little Boy Blue*, Hon. Vicary Gibbs (old rose colour), *Captivation* (pale rose), *Ideal* (pale blue), *Paragon* (pale blue), *Desire* (white—see illustration), and Hon. Edith Gibbs (a well

known and invaluable variety, pale blue in colour). *Cordifolius elegans*—Mrs. Rayner (invaluable for colour), *Little Bo-Peep* (new blue), *Enchantress* (a fine variety), *Freedom* (small white), *White Heather* (new), and *Esther* (dwarf pink).

Ornamental Trees and Shrubs.—In what is known as the wilderness at Aldenham a feature is made of grouping a number of trees and shrubs for summer, autumn and even winter effect, and this might in many open woodland spaces be adopted with equal success. Very large beds, well in keeping with the bounteous proportions of the estate, are planted, each with one kind of shrub, and it may be useful to mention a few of the kinds that

relied upon for next year's display. Then there was *Rosa rubrifolia* trailing over old tree stumps. Its purple hue had departed, giving place to scarlet fruits and yellow colour tones in the foliage. By the side of the large lake, *Cornus alba*, with its crimson foliage, soon to depart and reveal the brilliant red stems that make this Dogwood so valuable for winter effect, was massed with a lavish hand; so also was its variegated-leaved form, which added a touch of silvery sheen to land and water. *Spiræa prunifolia*, with crimson foliage, and red and yellow stemmed Willows all find a home beside the lake, and play their part in a well-thought-out scheme of colour effect for at least three seasons of the year.

Some Autumn Beds.—Though late in the season for bedding effects, there were still some brilliant flowers to be seen. The Fuchsias in particular were excellent, a bed filled with the hybrid *Coralie*, with its large clusters of semi-pendulous, coral red flowers, being particularly pleasing. Then there was the variety *Brilliant*, large plants of it freely bedecked with flowers, with a groundwork of golden-leaved *Alternanthera* and edged with *Echeveria*.

Autumn Roses.—The Rose garden at Aldenham is laid out in formal style, with turf paths between the beds, each of which accommodates one variety. The whole is enclosed in a Yew hedge, so trained and clipped as to form a living wall, with tiered pillars at the corners. This not only makes the Rose garden a secluded place, but protects the Roses from keen, biting winds, which do so much damage in early spring. General Schablikine, a Rose that ought to be grown much more than it is, was abundantly clothed with its coppery red blooms. *Coralina*, *Grüss an Teplitz*, *Gustave Regis* and *Papa Gontier* were others that called for special mention as suitable Roses for late flowering.

Rare Trees and Shrubs.—As we stated at the outset, the gardens at Aldenham are rich in rare trees and shrubs, but lack of space forbids detailed mention of these now. We hope, however, at some future time to refer to them more fully, and also to the wonderful *Streptocarpus* that Mr. Beckett has raised during recent years. So extensive are the gardens and pleasure grounds, and so well stocked are they with good and interesting things, that one



ASTER DESIRE, A CHARMING MICHAELMAS DAISY RAISED AT ALDENHAM HOUSE.

would need a whole issue of THE GARDEN to merely touch on each section. In spite of natural difficulties in the way of heavy clay soil, Mr. Beckett grows everything well, and the gardener, whether he be amateur or professional, who is privileged to visit the gardens at Aldenham House will find many object-lessons that may well be taken to heart.

By the kind forethought of the Hon. Vicary Gibbs, these gardens are thrown open to the public each Saturday afternoon during August, and, judging by the numerous visitors, this is much appreciated. Genuine lovers of gardens may at almost any time view the gardens by appointment.

were particularly interesting at the time of our visit. *Aronia floribunda*, now referred to by the Kew authorities as *Pyrus nigra*, was resplendent in its brilliant scarlet-crimson foliage, and in places where this had departed one could see the green-coloured stems that would take up their place in the colour effect for winter. *Spiræa Douglassi*, planted very thickly so as to form a mass, was still retaining its pink flower-heads, though most of the colour had departed, while the leaves were a beautiful golden yellow, and would be succeeded later on by the soft brown stems. Early next spring these will be cut down close to the ground, and the young growths that spring from the base

would need a whole issue of THE GARDEN to merely touch on each section. In spite of natural difficulties in the way of heavy clay soil, Mr. Beckett grows everything well, and the gardener, whether he be amateur or professional, who is privileged to visit the gardens at Aldenham House will find many object-lessons that may well be taken to heart.

THE FRUIT GARDEN.

THE BEST PEARS AND THEIR CULTIVATION.

THE question of growing Pears is one that should always be approached with some humility. The fickle nature of this fruit, so easy to cultivate in some respects and so difficult in others, makes it a pleasurable problem. It is somewhat of a conquest to bring to the fruit-room a collection which will carry the Pear season on to April or May, but it demands something of genius to send them all to table in the best condition. To many this difficulty makes their cultivation more interesting, and for the others there are sorts which will do remarkably well with less careful study.

The Best Soil.—The general remarks in a previous article, page 479, issue September 21,

pyramid and bush forms, and where decorative trees are not required, no form is better than these or the slight modifications known as the vase or goblet trained—terms which explain themselves. The tendency to overproduction of spurs must be kept in check, or a dense mass of foliage alone will result.

Why Pears Fail.—The reasons why Pears fail in many districts and in some hands are many, but among these I may mention the following: When bloom is plentiful and fruits few, the Pear midge may be suspected. Examine young fruits and, if they contain some small, white maggots, gather and burn all affected fruits and dress the ground with kainit. Or it may be that, if only one variety is grown, it is self-sterile and requires pollen from another to fertilise it. The remedy is obvious. Cracked fruit is caused by the black scab (*Fusicladium dendriticum*),

left on the tree as long as they hang firmly; but the earlier sorts must not be allowed to turn yellow, and should be gathered even when they part unwillingly from the tree. The failure of late Pears to ripen is nearly always due to either lack of sun or water or to early gathering. It is a frequent mistake to place late Pears on a north or east wall and the early ones in more sunny positions. Reverse the positions, water the later sorts freely, thin out the foliage round the fruit, and you will be repaid.

The Best Varieties.—The varieties to choose from approach in number the sand of many seas. A German book is on my table describing 1,040 varieties. Most of us will, however, be content with fewer than this number! To start the season the old Jargonelle has stood the test of three centuries, and still remains one of the best. Doyenné d'Été, though small, is a free bearer



A BEAUTIFUL AUTUMN BORDER. MICHAELMAS DAISIES GROUPED FOR EFFECT AT ALDENHAM HOUSE, ELSTREE.

as to planting fruit trees need not be repeated here, and it is only necessary to qualify these in so far as soil is concerned. The ideal soil is a deep loam or brick earth on a subsoil which retains a supply of water. The Pear is perhaps more often starved from lack of water than want of food. The use of the Quince stock, however, makes it possible to grow the trees on shallow soils, and is thus of the greatest importance for this purpose, also for inducing earlier bearing, so that we now may plant Pears without a single wish to benefit posterity.

Pruning.—In the matter of pruning, no tree is more long-suffering. It will stand up to the most desperate pruner and give him a chance to repair his errors. It submits to the restriction of training very readily, and as horizontal, fan-shaped and double cordons is most valuable. Its natural conical habit renders it *facile princeps* for the

and unhealthy roots and unkindly subsoils are a contributing cause. Gather and burn affected fruits, and prune out all wood which shows the ruptured bark so characteristic of this disease. Lack of flavour may be due to want of proper pruning. Pears refuse to develop their best fruits under a dark mass of leaves. Let in the light and air. Again, it may be that persistent nitrogenous manuring causes rank growth, and in this case stop the offending cause and apply basic slag in the autumn and a lighter dressing of superphosphate in the spring.

When to Gather Pears.—A most frequent complaint is of fruits rotting at the core. This is also caused by too much nitrogenous manure (or overdoses of water) and gathering too early. All early Pears must be gathered before they are ripe, a fact that cannot be too often repeated or with too much emphasis. Late Pears must be

and quite good for its season. In September comes the favourite Williams', needing no recommendation and merely a caution that its flavour must not always be judged from fruit sold under this name. Souvenir du Congrès follows, and is of first-class quality, with melting flesh. Marguerite Marillat comes between the last two named, but is rather more for the show than for the dinner table. October and November bring in so many fine sorts that selection becomes more than usually difficult.

Considering cropping powers first, we must admit Conference and Durendeu, both of which are good, and the former an example to all Pears in the matter of regularity of fruiting and freedom from disease. Beurré Hardy also fulfils the promise of its name, and adds to this quality good appearance and flavour. To these we must add Marie Louise, Louise Bonne of Jersey and Emile d'Heyst,

old and well-tried favourites. On the *bonne bouche* principle I now cite the Queen of Pears (the feminine gender always seem appropriate in this connection), Doyenné du Comice. To paint the Lily or add flavour to the Comice are tasks of equal undesirability.

The Christmas dessert will be supplied by Winter Nelis (for those in warm climates), and the new Santa Claus is a visitor who bids fair to be as welcome and as universal as his namesake. Of the after-Christmas Pears, Olivier de Serres, named after the great French agriculturist, is, despite an unpromising exterior, most excellent in flavour and a fertile variety, and Josephine de Malines will carry the Pear season into March. If another variety is wanted, the claims of Duchesse de Bordeaux should be carefully considered. A word as to cooking Pears. In my opinion none equals *Bellissime d'Hiver*. It lasts long in season, often till April, and its freedom from grittiness is not the least of its virtues.

EDWARD A. BUNYARD.

THE GREENHOUSE.

BEAUTIFUL WINTER GREENHOUSE FLOWERS.

(BOUVARDIAS.)

THE different Bouvardias form a delightful race of flowering plants for the greenhouse, among their prominent features being the fact that they are at their best during the autumn and early winter months, and that they possess a certain air of refinement and are, consequently, worthy of association with any other flowering subjects, however choice. In my young days a cluster of Bouvardia was considered to be an ideal button-hole flower; now, however, the flowers are not large enough to satisfy the votaries of fashion, but there are still some who decline to follow the beaten track, and prefer a small or medium-sized flower.

Apart, however, from any consideration as a cut flower, neat, bushy plants of the different Bouvardias are exceedingly valuable for the embellishment of the greenhouse, where they retain their beauty for a considerable time. Their culture is not at all exacting, as a few old plants put into a gentle heat early in the year will push out a quantity of young shoots, and these, when from 1½ inches to 2 inches long, form the best of cuttings. In fine, sandy soil they will quickly root in a close propagating-case, when they must be potted off and shifted into larger pots when necessary. They should be occasionally stopped in order to induce bushy plants, while a liberal proportion of leaf-mould in the potting compost is all in their favour. Pots 5 inches in diameter are large enough to accommodate plants struck from cuttings in the spring, but, of course, older ones may be grown in pots much larger than that. For many decorative purposes, however, 5-inch pots are quite large enough.

At one time Bouvardias were often planted out during the summer months, and lifted and potted before flowering. This practice is not so much carried out as it formerly was, prominent objections to it being the fact that it was necessary to employ somewhat large pots, otherwise the leaves were liable to suffer. Besides the young shoots, Bouvardias can be propagated by root-cuttings, and they were at one time extensively treated in this way, but it is not now much employed. A curious feature is that plants from root-cuttings are, if the variety has been obtained from a sport, occasionally liable to revert to the typical kind. This was first brought home to me in a very unpleasant manner, for when the double white variety Alfred Neuner was sent here from the United States, just over thirty years ago, I, being anxious to obtain as large a stock in as short a time as

Cleveland, the best of its colour, a vivid scarlet; Priory Beauty, deep pink; and Pride of Brooklyn, a better white than Vreelandii. The large, pure white, deliciously-scented *B. Humboldtii* corymbiflora, which may be had in flower in the summer, must on no account be passed over in any selection of the very best kinds. H. P.

CATALOGUE ILLUSTRATIONS OF BULBS IN POTS.

THE custom of issuing well-got-up catalogues with illustrations of many of the bulbs therein offered for sale is becoming more general. Very many nowadays contain pictures of the whole plants as they are grown either in pots or bowls. It is of these I feel constrained to make a few remarks. Some must surely be put in as awful examples of how "not to do it." Can anything be more spoiling to the natural beauty and gracefulness of the Daffodil than some of those overloaded and over-flowered potfuls, which may be wonderful examples of culture and well-prepared bulbs, but which also indicate that this or that particular gardener's skill has, alas! got the better of his taste.

I have picked out the illustration shown as being one of the best-got-up of its kind that it has been my lot to come across. If each compiler of catalogues and every reader of THE GARDEN will only copy the spirit of this bowl of Campernelle Jonquils when they are potting their bulbs, I am sure they will be very pleased with the results next spring; hence my first bit of advice, "Don't overcrowd."

Another point of considerable importance is the height of the receptacle in which to grow the plants. It has been abundantly demonstrated that for decorative purposes nearly all bulbs will do as well in shallow pots as in the old-fashioned deeper ones. To my mind there can be no question which is the more pleasing, and as I have said more than once in THE GARDEN pages, I have taken almost entirely to the former. So my second wrinkle is, "Use shallow bowls or pots."

Again I would ask readers, if they have not already done so, to notice the difference in the look of perfectly plain bowls and those with

some ornamentation either in colour or in an embossed pattern. Speaking generally, I feel there can be no comparison between the two. The plain are so much nicer and set off their contents so much better. After a good deal of consideration and observation I have decided in my own mind that the best colour of all is a dull brown, not only for bowls, but even for pots. What is known as Silchester ware is the sort of thing I mean. I am having some made for me this year, and, as I am daily expecting them, I shall be able to grow a more varied collection than I have hitherto done. In the spring I hope to report. Thus the third and last point that I would urge on "potters" is, "Use as plain and unornamented bowls or pots as possible, and try those coloured brown." JOSEPH JACOB.



A BOWL OF CAMPERNELLE JONQUILS WELL ARRANGED FOR EFFECT.

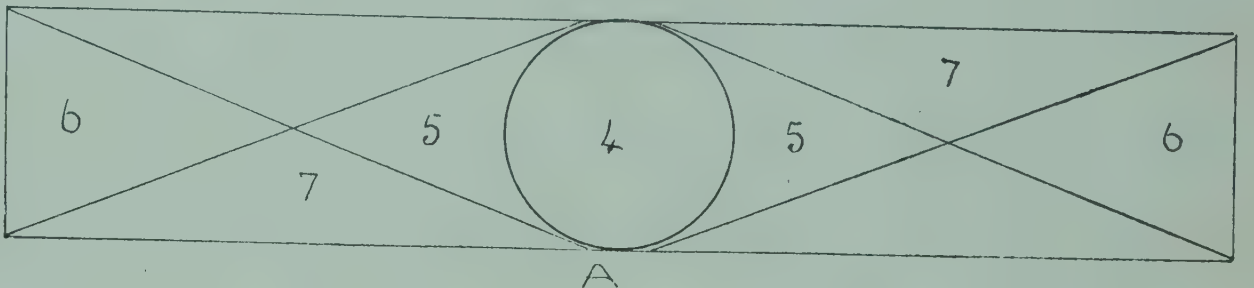
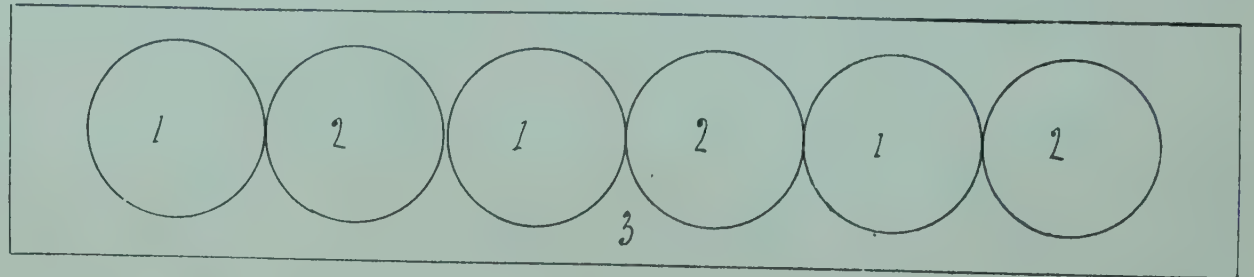
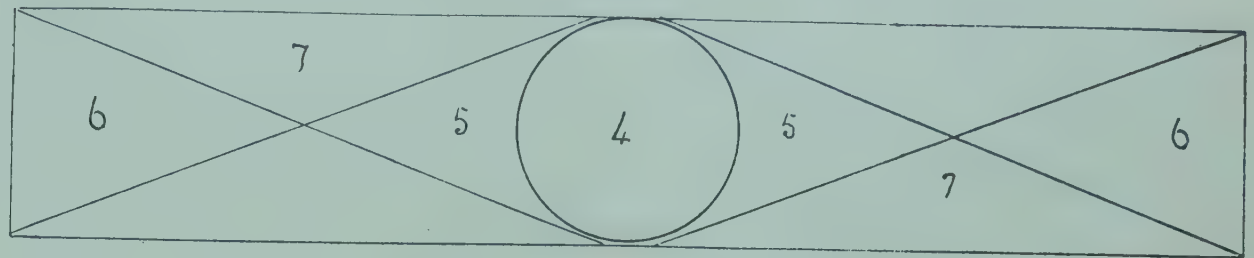
possible, struck a number from root-cuttings. When these flowered many of them reverted to the single Davisonii, from which Alfred Neuner originated as a sport, whereas all those struck from the young shoots retained their double character. Some of the best varieties include: With double flowers—Bridesmaid, bright pink; Hogarth flore pleno, rosy scarlet; President Garfield, soft pink; Victor Lemoine, scarlet; and the white Alfred Neuner, above alluded to. With single flowers—Dazzler, scarlet; Hogarth, soft scarlet; jasminiflora alba odorata, white, with a reddish tinge at the backs of the petals, deliciously scented; jasminiflora paniculata, pure white; King of Scarlets, a large flower, scarlet, with white tube; Mrs. Robert Green, soft salmon pink; President

GARDENING FOR BEGINNERS.

SIMPLE BEDS OF BULBS AND OTHER SPRING FLOWERS.

THERE are many kinds of spring-flowering plants that may be associated with bulbs, the beauty of the flowers of the latter being much enhanced by the close proximity of the other kinds of flowers. The spikes of the bulbs, especially those of Hyacinths, Tulips and Narcissi, grow a fair height above the soil. The growth of many kinds of hardy spring flowers is, in comparison, dwarf, so that the latter may be used as a groundwork to the taller flowers or as a bordering to the various beds. The beds shown in both A and B designs are suitable for planting as separate borders in any garden, on a small or large scale, and, of course, the whole design in each case may be used on a lawn or cut out, edged with tiles and gravelled between.

Effective Ways of Planting the Beds.—The long central bed may be filled as follows: Nos. 1 1 1, Hyacinth La Grandesse; Nos. 2 2 2, Hyacinth Roi des Belges (dark red); No. 3, entirely filled with *Aubrietia deltoidea* (lavender blue). The whole bed would thus show the colours red, white and blue. No other bordering would be needed, as the *Aubrietia* would form it in the way of a carpet bordering. Where the three sets of beds are planted close together, as drawn, the two outer ones may be filled as follows: Nos. 4 4, Tulip Keizerskroon, scarlet, with yellow border; double white *Arabis* as a groundwork. Nos. 5 5, Tulip Queen of the Netherlands, bluish colour; *Aubrietia Leichtlinii*. Nos. 6 6, Tulip Duchess de Parma, orange red, yellow border; groundwork of white *Arabis*. All other divisions, Nos. 7 7 7 7, filled with Hyacinths King of the Blues and L'Innocence, blue and white respectively, and single-flowered *Arabis alpina* as an edging only, but not as a groundwork for all the Hyacinths. No. 1 design, B, may be filled with Hyacinth gigantea, or Norma or Moreno, all pink-flowered, and La Grandesse, white, with a groundwork of Forget-me-not, or an edging, No. 2, of the latter plant. Nos. 3 3 and



EFFECTIVE WAYS OF PLANTING SPRING FLOWERS.

Nos. 4 4, Tulip Dusart, dark red, and *Arabis alpina*, respectively; Nos. 5 5 and Nos. 6 6, Hyacinth Grand Maître, light blue, and single-flowered *Arabis*, respectively; Nos. 7 7, Tulip Mon Tresor, yellow; Nos. 8 8, *Aubrietia* Crimson King, dark red; Nos. 9 9, Tulip Rose Gris de Lin, a pale rose; and Nos. 10 10, *Silene pendula compacta* or *Silene acaulis*, both pink-flowered.

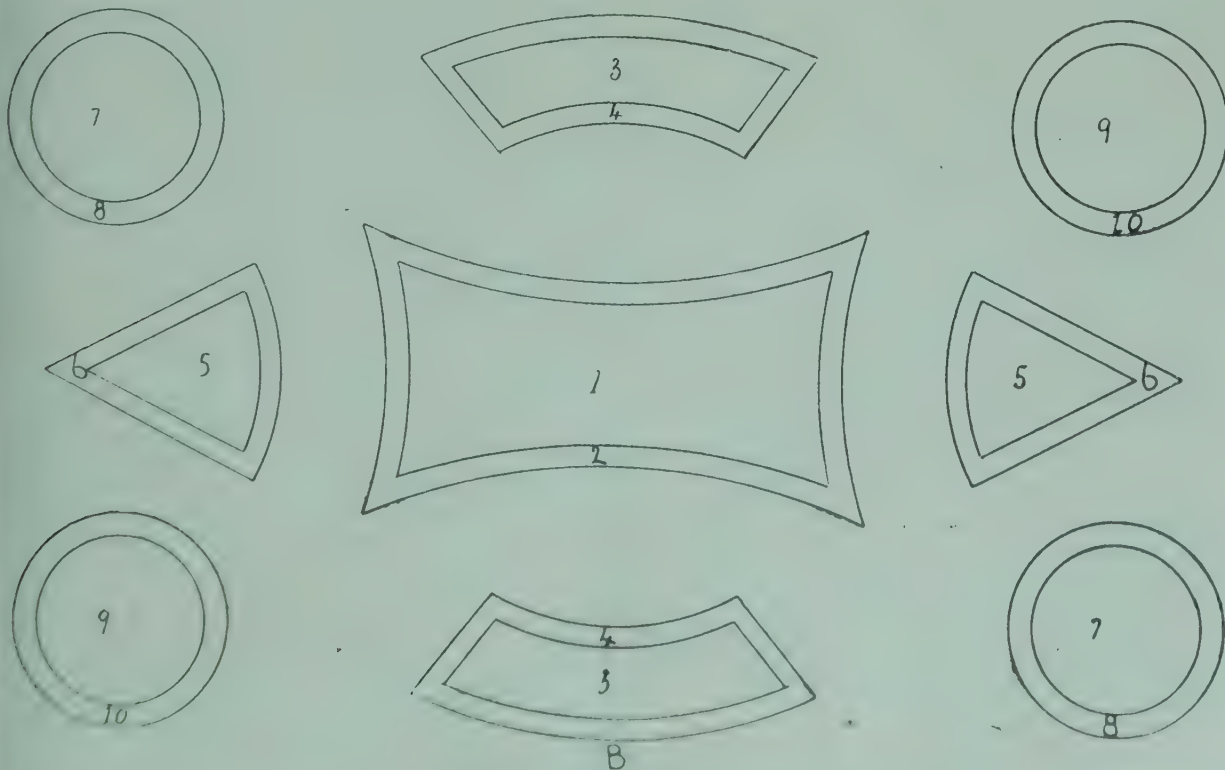
The Soil and the Planting.—As it is not desirable that the groundwork plants should be very gross in growth, manures must not be applied to the soil in such a way that their roots will come in direct

contact with it long before the flower-buds are formed. The necessary rotted manure must be dug in very early before the bulbs are planted. The surface or groundwork plants must be put in first. Where bulbs are associated with other kinds of plants, it is well to allow them more space than in cases where they alone occupy the beds. The surface plants must be put in far enough apart to allow of due expansion of growth without overcrowding. These should, when in full bloom, form a dense carpet or a compact edging, as the case may be.

G. G.

SEDUMS FOR THE ROCK GARDEN.

SEDUMS are most useful plants for the rock garden, and there are many beautiful species and varieties. The various tints of foliage make them most interesting plants to study during the winter, and when in flower during early autumn there are no plants which give a more charming effect. I will name a few of the best in the mossy section, which may be grown in the rock garden as wall plants, or any place where the roots can obtain a foothold: *Minima*, the flowers of which, greyish white, are produced so freely that they nearly hide from view the tiny glaucous foliage; *glaucum*, flowers white, glaucous foliage; *hispanicum*, pinkish flowers; *Lydium*, pink; *spathulifolium*, yellow flowers, the foliage very pretty, of fleshy habit, but compact and close-growing; *anopetalum* I am including among the mossy section on account of its close-growing habit—the flowers are a beautiful pale pink; *boloniense*, yellow; *virens*, yellow; *album*, white, very pretty; *turgidum*, creamy white, a neat-growing variety; *Willisii*, white, star-like flowers; *maueanum*, yellow; *grandiflorum*, a very pretty yellow variety; and *sexangulare*, a neat-growing yellow kind. These are about the best of the mossy section. J. L. E.



SIMPLE DESIGNS FOR SPRING BEDS AND BORDERS.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Autumn-sown Sweet Peas.—The sowing of these in pots to be wintered in a cold frame for planting out early in the New Year should now be done. The practice is very similar to that of spring sowing, but by this method considerably earlier supplies of flowers will be obtained. Select, if possible, a shallow frame and one with a firm bottom of ashes. When the seedlings are up, remove the light on every favourable opportunity, taking care to protect the plants from sparrows.

Shrubs for Bedding.—Where the use of other material for enlivening the beds during winter and spring cannot be used, such as perhaps low, shady positions, an excellent effect can be had by planting small shrubs in variety, both evergreen and a few deciduous, and these are at once attractive and continue so the whole time. For this purpose there are many subjects that can be utilised, and a few should be propagated or secured each year, so that the larger ones may be worked out on to the shrubberies. A few of the things that may be used are various Hollies, Cupressus, Osmanthus, Phillyreas, Andromedas, Aucubas, Box, Ericas, Euonymus, Pernettyas, Skimmias, Veronicas, Laurustinus and Vincas.

The Rock Garden.

Fallen Leaves.—Not only for the general appearance, but also for the benefit of the plants, it is important that the plants and rockery be kept clear of fallen leaves, otherwise when these commence to decay much damage may arise to the more tender subjects. Continue to remove any exhausted growth, and make the appearance of the whole as pleasing as possible. It is at this season when our lesser shrubs and foliaged plants are appreciated.

Protection.—Possibly many plants are not sufficiently hardy to stand several degrees of frost, and therefore temporary protection must be afforded them. This is much preferable to covering the plants entirely, excluding all light for two or three months. One of the best means and the neatest is the use of small pieces of Spruce boughs, which can be pointed and put in on the coldest side of the subjects. Others less hardy may be completely enveloped with them. For low-growing, dwarf plants we use small cages of coarse wire-netting and pack them with a little dry Bracken, while a covering of cinder-ashes over the roots will be found an excellent protection both from cold, damp and slugs.

Plants Under Glass.

Carnations.—The Tree Carnations should by now be commencing to flower freely. The plants will need occasional tying and the yellow leaves removed. Give the surface soil a pricking over and sprinkle a little artificial plant food specially recommended for them. The plants, to continue healthy and throw strong shoots, must have free ventilation, accompanied by just a little heat, and a night temperature as near 50° as possible will be found about right. Water as often as required, and assist the plants with applications of weak liquid manure.

Primula kewensis.—This plant will be better if housed, as it is liable to injury from frost unless well protected in the frames. Water carefully and assist the plants by the use of a little stimulant. For winter and early spring flowering it is an excellent subject.

Gladioli.—For greenhouse decoration in the spring the Gladioli are indispensable, and a supply of suitable varieties may now be potted up into 5-inch and 6-inch pots. Use a light and rich compost, place the corms just under the surface fairly close together, and treat as advised for Freesias. For this treatment The Bride (pure white) and Blushing Bride will be found admirable.

Chrysanthemums.—The large blooms this year are not quite as satisfactory as usual, owing to the inclement weather experienced during the summer, and many are very late. Endeavour to make the display, however, as attractive as possible by grouping the plants together. Give sufficient water when in flower to prevent excessive dryness, and air freely during the warmest part of the day.

The Kitchen Garden.

Asparagus.—The growth on the beds will now be sufficiently ripe for cutting down, removing it to a vacant piece of the garden and burning it. During frosty weather cover the beds with a little decayed farmyard manure, first removing all weed growth.

Winter Greens.—Keep the ground clean among these plants, and remove any bottom foliage that shows signs of decay. Make the plants well firm, and do the best to get them hardy before severe weather sets in by a free circulation of air and sun.

Cabbage.—Plant another batch towards the end of this month, and draw a little soil up to the earlier plantings as a protection. Plant just as thick again as the plants are to remain.

Fruits Under Glass.

The Orchard-House.—The majority of the pot trees of Apples, Pears, Cherries and Plums ought by this date to be completed with regard to potting or top-dressing, whichever is necessary. The staple portion of the soil should be the best fibrous loam, to which add some lime rubble and oyster-shell (particularly for stone fruits), a little soot, wood-ashes and crushed bones. Pot firmly, not too deeply, and well water in. If top-dressing only is necessary, see that the drainage is perfect before adding new soil.

The Water Garden.

Autumn Effects.—The value of the various water-side plants is now apparent, and any alterations to be made when growth is removed should now be noted. The Typhas, especially the small one, *T. angustifolia*, is very attractive, as is also *Phragmites communis*, *Cyperus longus*, *Glyceria spectabilis* the giant Water Dock, *Miscanthus* and *Eulalia*.

Water Lilies.—These are best planted in April, though, of course, planting may be done very much earlier. Before growth dies down completely, however, mark the spots where the plants are, otherwise it will be difficult to locate them. Large clumps that have to be curtailed may be pulled out now and re-divided if necessary, as it is much easier to see when the whole of the stool is removed.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Curbing Roots.—Where herbaceous borders are backed by hedges, Rose-covered trellises, or by climbers, the roots, if not checked periodically, rob the soil of its fertility. By cutting the roots almost close to the plants—I cut those of hedges perpendicular to the inner face—this does no harm.

How to Do It.—It is a very simple operation. A narrow trench the width of a spade and a few yards in length is thrown out at one end and deep enough to allow the spade being forced down to cut the lowest roots. A second stage of the trench is thrown into the first and the roots similarly treated, and so on to the other end, the open space being filled with the soil thrown out at the beginning of the operation.

More About Herbaceous Borders.—If there is not time to lift the plants, cultivate the soil and replant. The borders should be dug and some rotted manure worked in, reducing the dimensions of those plants which are overgrown. It harms no plant to cut its roots with the spade in the course of the work, and it is preferable to dig the border at this period rather than in spring, the labour involved being little more than that required to rake and clean off the surface rubbish which is buried in digging.

Hollyhocks.—Seedlings in too small pots to stand over the winter should be transferred to larger ones without further delay. Scarcely any water will be needed if the plants are wintered in a cool, dry structure, but roots will be formed and the plants much strengthened. Dusting with flowers of sulphur will keep the foliage free from Puccinia, which sometimes attacks it at this season.

Shrubs.

Planting.—Most of the replanting of choice shrubs should be finished forthwith, staking them as the work proceeds.

Their Hardiness.—Several notes have appeared on this point, and it may be remarked that a particular shrub may be cut to the ground or even killed in one particular spot, while in a more sheltered position and drier soil the foliage will not be so much as harmed. This, no doubt, is an effect of the quality of the roots, because it is found that a specimen of the same kind that has been recently transplanted weathers a severe winter when plants which have been undisturbed for years are either crippled or destroyed.

Shrubs that are Hardy.—*Choisya ternata* in various positions is much hardier than a common Laurel. *Cercidiphyllum japonicum* is also hardy, but does not colour so well here as in the South. *Nandina domestica* is not only hardy, but flowers annually. *Colletia* is also hardy and flowers sometimes bi-annually, and *Azaramic rophylla* fruits in the open, while *Piptanthus*, *Garrya* and *Carpenteria* are fairly hardy even in elevated parts. Probably these and other plants from warm climates become acclimatised in the course of years.

The Plant-Houses.

Cyclamen.—The old plants now in frames may be transferred to pits, where they will progress better. At the same time, if space is limited, they can be left for some time longer in a dry frame, giving them the minimum amount of water to make sure that the stalks of the flowers do not rot. See that seedlings are carefully watered, and yearlings coming into flower may have manurial aid.

Liliums.—Any unflowered speciosums still standing outdoors should be placed in a slightly warm temperature, in which the flowers will open kindly. Others that have finished growth should be stored in a frost-proof building and allowed to rest till the bulbs exhibit signs of activity in spring.

Dendrobiums.—Deciduous species which have finished growing should be placed in a cool, dry house where they can get a long rest. The stronger-growing kinds usually want staking anew, but the number of stakes may be considerably reduced by tying a number of growths to one stake or to each other.

Schizanthus.—These will be in a condition for repotting into 5-inch or 6-inch pots. Clarkias require much more root space, but if not forward enough they may have an intermediate shift. These succeed very well in an ordinary Carnation-house, the temperature and manner of ventilation suiting them very well.

The Fruit-Houses.

Bottling Grapes.—Some of the Vines, such as Muscats and Alicantes, which are fully matured, can now be relieved of their crop. A dry room where the temperature can be kept from varying without the employment of much firing suits them very well. Frequent examination of the clusters is important to keep damp from spreading from berry to berry.

Pot Trees.—Those not yet potted up for the year should now be either repotted or surface-dressed and the drainage renewed; then placed out of doors as advised in a previous calendar for Peach trees. As soon as all the foliage is off, they may be sprayed to destroy any parasites and their eggs.

Peaches.—The latest fruits will ripen all the better with pipes heated to sweeten the atmosphere and to keep the temperature about 45° to 50°, so as to ensure flavour. The fruits ripen very slowly, but must be frequently examined, and those approaching maturity removed and ripened off in a warm room.

The Vegetable Garden.

Cabbage.—The larger plants of the autumn planting will be improved by drawing a little earth up to the stems and loosening the soil between the rows of all. Winningstadt is now producing, and should be used up before the Drumhead section, which stands the winter better. Stir the soil well among Coleworts which are backward, and those that are turning in pull up with a twist so as to keep the quarter tidy.

Endive.—Where this vegetable is in request, enough to meet the supply for five or six days should be put into the Mushroom-house at intervals. Lifted with a ball of soil attached, they may be set close together on the floor of the house, and need no more attention till ready for use. The latest batch growing outside should be transplanted into cold frames.

R. P. BROTHERSTON.

Tynninghame, Prestonkirk, N.B.

TREES AND SHRUBS.

THE BEST SHRUBS FOR FORCING.

PEOPLE who wish for a good supply of forced shrubs for winter and spring would do well to commence their preparations without delay, for the best results are obtained from plants which are potted at once, because the roots are still active and the plants become well established before winter sets in. No doubt in many gardens this important work has already been done. Where alterations to shrubberies and beds of shrubs are contemplated, it is sometimes possible to select suitable subjects for forcing from among the surplus plants, but the most satisfactory results are usually obtained from plants which have been grown specially for forcing. The size of the plants required has, of course, to be taken into consideration, and when they are to be used for decorating large rooms, the bigger and older ones from the shrubbery have the advantage; but as a general rule well-grown nursery stock is quite satisfactory.

When shrubs are being grown specially for forcing, care is taken to foster the production of the maximum amount of flowering wood for the size of the plant; therefore all useless, weak branches are cut away during summer, so that the whole energy may be concentrated upon the production of good, vigorous shoots. In the case of Lilacs and a few other subjects, this thinning process has the effect of making the plants somewhat straggly in habit; that, however, cannot very well be helped if flowers are to be the first consideration. As a rule, it is as well to lift the plants from the borders, pot them at once, and then plunge them in ashes out of doors until required for use. Should a frosty time be experienced in winter, dry leaves or hay spread over the surface of the ashes makes it possible to remove the pots from the plunging material at any time when the plants are required for the forcing-house.

A great many shrubs are grown specially for forcing in some Continental nurseries, and they are sent to the British Isles in large numbers during autumn; but some nurserymen in this country make a speciality of growing shrubs for the work. Twenty years ago comparatively few kinds were considered suitable for forcing, but of late years many more have been requisitioned. Of those most suitable for the purpose, the following selection has been made:

Wistaria chinensis.—This is one of the most beautiful shrubs imaginable, for the large racemes of fragrant mauve flowers are borne with great freedom. Moreover, it is one of the plants which may be grown in pots and forced for several successive years.

Robinia hispida inermis is another excellent shrub for the purpose, for its large, rose-coloured, Pea-shaped flowers are very attractive.

Forsythia suspensa is, in a way, as valuable for greenhouse as it is for shrubbery decoration, for it forces easily, and may be had in flower from Christmas onwards. Large bushes lifted from a shrubbery blossom well.

Spiræas are also useful, such kinds as *arguta*, *confusa*, *prunifolia flore pleno* and *van Houttei* being the best. These are all white-flowered, and the blossoms are borne in profusion.

Prunus japonica flore pleno and *P. triloba flore pleno*, the former white, the latter pink, are popular shrubs which may be depended on to flower well; while any of the double-flowered

Peaches, more especially the red ones, are excellent when large plants are required. They may, however, be obtained as quite dwarf plants, but such are less showy than those of natural growth.

Staphylea colehica.—The flowers of this and *S. Coulombieri* come quite white when forced, and, as the inflorescences are large, well-flowered plants are very attractive. Although not generally forced, the double-flowered *Kerria japonica* is excellent for the purpose, while *Berberis Darwinii* may also be used. Various Crab Apples are grown as dwarf plants for forcing, such kinds as *Pyrus floribunda*, *P. Scheideckeri* and the double form of *P. spectabilis* being specially valuable.

Magnolia stellata, *M. conspicua*, *M. soulangeana*, *M. Lennéi* and *M. rustica* are all worth consideration, the first-named by reason of its glistening white star-shaped flowers, and the others on account of their large cup-shaped, fragrant blossoms.

Diervillas (Weigelas), such as *Eva Rathke* and *Abel Carrière*, blossom profusely if brought on gradually, but they object to violent heat in the early stages.

Lilacs of various kinds are very serviceable, those known as *Charles X.* and *Marie Legraye* being two of the best. When selecting Lilacs, care should be taken to choose those with a few strong growths, rather than those which are made up of a large mass of small branches, for the latter rarely bloom satisfactorily.

Deutzia gracilis has long been popular for spring use on account of its graceful habit and white flowers. *D. Lemoinei* is also useful, while the various varieties and hybrids from *D. discolor purpurascens* may be requisitioned.

Azaleas.—Of the various hardy Azaleas, those of the mollis class are perhaps the best, although they lack the fragrance of the American kinds. For quantity of flowers and richness of colouring they are, however, unequalled.

Evergreen Rhododendrons need to be selected with care, for all do not force equally well. Probably the best of all for forcing is *R. nobleanum*, for it may be obtained in flower from Christmas onwards. Any kinds which bloom moderately early, however, may be tried; but it is not advisable to force any of the late May and June flowering sorts. Dwarf growers, such as *R. præcox* and *Rosy Bell*, are excellent for the work.

Other shrubs, such as *Kalmia latifolia*, *Zenobia speciosa*, *Hydrangea paniculata grandiflora* and *Cytisus præcox*, are also available, but they cannot be depended on to give such good results early in the year as those previously mentioned. W. D.

THE EDITOR'S TABLE.

October Flowers from a Sussex Garden.—A box of hardy flowers and berried shrubs kindly sent by Mr. J. Comber of The Gardens, Nymans, Handcross, Sussex, serves to remind one of the many beautiful subjects that may be grown in the open for October effect. Among the plants sent were *Habrothamnus elegans*, more correctly known as *Cestrum elegans*, and usually given a position under glass; *Eugenia apiculata*, sometimes met with under the name of *Myrtus Luma*—the sprays sent were literally smothered with creamy white flowers; *Polygala mixta*, with Heath-like foliage and small pink flowers; *Billiarderia longifolia*, with shiny purple-black berries; *Eupatorium weinmannianum*, with large heads of dull pink flowers; the sky blue *Lathyrus pubescens*;

Euonymus alata, with bright red autumn foliage; *Cyrilla racemiflora* and *Erica ciliaris*, completing a most interesting collection, particularly for the time of the year.

Carnations from Enfield.—Messrs. Stuart Low and Co., Bush Hill Park, Enfield, send flowers of some of their new Perpetual-flowering Carnations, which are very good. Among them we were particularly pleased with *Cinnabar*, a very fragrant flower of cinnabar red colour; *Benora*, a large, exquisitely-shaped variety, white, striped scarlet; *Rosette*, bright cerise, with large, full flowers; and *Baroness de Brien*, a glowing shade of salmon pink. This last is a particularly large flower. All those named have long and very stout stems, and the calyces are sound.

Primulas from Duns.—Dr. Macwatt sends from his garden at Duns, N.B., a wonderful collection of Primulas for the time of year. Among them were some particularly fine examples of the gold and silver laced Polyanthuses that used to find such favour with florists. Primroses of nearly all colours, including some extra good blue ones; a number of beautiful double varieties, together with such species as *Julia*, *Listeri*, *vittata*, *japonica* and *altaica*, all added their quota of beauty and interest to this contribution. We must also mention the fine forms of *P. obconica* that Dr. Macwatt included, the white and blue varieties being particularly pleasing.

ANSWERS
TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

TO DESTROY BEARBINE (J. H.).—If your ground is fairly clear of everything else, you cannot do better than trench it and pick out every piece of the weed you can find. Pieces are sure to be left, but a sharp look-out must be kept, and as soon as any growths appear above ground they must be destroyed. By repeatedly hoeing the weed it can be killed in time; but you cannot be sure that you have cleared the ground for several years, whereas by trenching and picking out the underground stems you make sure of killing by far the greater proportion. When it is growing in hedges or among shrubs, the only plan is to keep pulling the shoots up as they appear above ground. This will in time weaken and eventually kill the weed.

MARCHANTIA AMONG ALPINE PLANTS (J. J. R.).—You ask whether "some chemical would eradicate this without injuring alpine plants," and the answer is "No!" What would be death to one of the lower forms of vegetable-life would be death also to other forms a few degrees removed. If this vegetable pest is present to an injurious extent among alpine plants, we can only suggest two ways of coping with it, viz., preventing its maturing spores giving a fresh crop, and frequent disturbance, using a pointed stick to dislodge it, and burn it. Should it exist in any get-at-able place, a strong solution of salt and water might be applied with a small paint brush, but the solution must not touch the plants or be in sufficient volume to reach their roots. Generally speaking, its presence is indicative of much moisture or shade; but as you say it thrives in sun or shade, you appear to be badly circumstanced. Try the pointed stick arrangement and persevere. The plant detests interference, though not easily got rid of.

ROSE GARDEN.

ROSE FOLIAGE BLIGHTED (W. G. R.).—Your Roses are infested with thrips and Rose slugworm. They should have been sprayed earlier with some good insecticide, such as nicotine wash. We should advise cutting a lot of this blighted foliage off and well spraying the plants afterwards with a solution of Cyllin Soft Soap, obtained from Messrs. Jeyes of Cannon Street, London, E.C. Or you could make a strong solution of Lifebuoy Carbolic Soap and spray well with this on the upper and lower surfaces of the foliage. Give the plants a mulching of 2 inches or 3 inches of well-decayed manure or spent Hops. Next May give them a good deluging with plain water, and a few days afterwards with some good liquid manure.

PROPAGATING THE PERNETIANA ROSES (Northants).—The Pernetiana Roses are best budded upon the seedling Briar stock, and upon the hedge Briar for standards. The distinguishing feature of this new tribe is that they possess much of the Briar-like nature of their first parent, Soleil d'Or. This, as you may know, was obtained from a cross between the Austrian Briar (*Rosa lutea*) Persian Yellow and a Hybrid Perpetual Rose, Antoine Ducher. The originator of the tribe, M. Pernet-Ducher, has used this Soleil d'Or and seedlings from it in creating the Pernetiana group, the seed-parents being in most cases various Hybrid Teas. For instance, Rayon d'Or was raised by crossing Melanie Souper with Soleil d'Or. Those of the tribe that favour the Soleil d'Or most in their erect habit are Juliet, Soleil d'Angers and Beauté de Lyon, while the following have more of the Hybrid Tea character, although distinctly blended with the Briar nature: Lyon Rose, Arthur R. Goodwin, Rayon d'Or and Viscountess Enfield. All of these are very fine, and well worth adding to any collection.

DESCRIPTION OF RAMBLER ROSES (P. H. T.).—It is always most difficult to put on paper a true description of any Rose, and especially with ramblers, whose peculiarity it is to change in appearance almost daily. Now, in comparing the following Roses with Dorothy Perkins it must be admitted that soil and situation will make a great difference in colour, size of bloom and truss. Taking the Roses in the order you have named, Minnehaha is quite a deep rose pink in colour, the flowers much larger than Dorothy Perkins, and the truss much larger and longer. The growth is very vigorous, the foliage larger and of a paler green, and the time of flowering about the same. Débutante flowers quite two weeks earlier with us. Its blossoms are a very dainty blush pink, double and well shaped, but the clusters are rather small. It has the merit of flowering again, as does Dorothy Perkins. Lady Gay is a heavier pink, almost a salmon pink; the flowers are much larger, and the clusters are also larger. There is not so much bunchiness as in Dorothy Perkins when fully out, but it does not flower much a second time. It is about eight days earlier than Dorothy Perkins. The Farquhar is of a rose pink colour something like Minnehaha, but the flowers are smaller, and the clusters will often contain blooms nearly white. It is a variety we can well do without. Dorothy Dennison, Christian Carle and Lady Godiva are practically all alike. If you have neither, you should obtain Lady Godiva. It is a very lovely soft flesh pink colour, and flowers about the same time as Dorothy Perkins.

THE GREENHOUSE.

AURICULA (J. B.).—There is no fungus present on the Auricula, nor can we find any insect. Have the plants been kept too moist and warm?

HIPPEASTRUMS (E. R. P.).—The most probable cause of your Hippeastrum failing to flower was that the bulb was insufficiently ripened, for had the flower-spike in embryo been contained within the bulb, it should have developed under the conditions named by you. Doubtless the same cause applies to the second and smaller bulb. In order to ensure a display of bloom, it is most essential that the bulbs are well ripened; hence they should, during the latter half of the summer, be fully exposed to the sun. They must, however, be kept regularly watered till the leaves die down, when less must be given, and throughout the winter discontinued altogether. If you have no greenhouse, a sunny window is a good place in which to ripen the bulbs.

CARNATIONS (C. A.).—There is no distinct Latin name for the two sections of Carnations named by you, as all of the different forms of Carnations now in cultivation have originated from one species, namely, *Dianthus caryophyllus*, a native of Europe. The Malmaison Carnation is of a sturdy habit of growth, with very large, irregularly-formed flowers, which are deliciously fragrant. It is the most particular in its cultural requirements of all the Carnations. The American varieties, on the other hand, are characterised by a free habit of growth, and bear throughout the greater part of the year fine showy flowers on long stalks. Though large, the blooms of these are in size not equal to those of the Malmaison, but they are of better shape, while in most of them the edges of the petals are more or less toothed. The varieties of this section vary a good deal with regard to their fragrance, some having very little, while others are sweetly scented.

GLOXINIAS (Mary Jane).—The reason of your Gloxinias behaving in the way indicated is, no doubt, owing to the fact that they have been subject to too much heat and moisture, and are consequently unable to stand up against the change in temperature. You speak of growing them in a hothouse and then shifting them into a house which is also heated. This would suggest that the house in which they are grown must be kept very hot indeed, for Gloxinias

at this season require but little fire-heat; in fact, good plants can be grown at this season without any artificial heat whatever, provided care is taken to shut up the house early and thus husband the sun's rays. We should advise you to grow your plants altogether under harder conditions (not altogether without fire-heat), and then you are not likely to be troubled in the way described. One thing, however, to bear in mind is, whether grown hot or cool, they must be shaded from the sun's rays during the hottest portion of the day throughout the summer months. As your plants are so weak, you may remedy matters somewhat by supporting the blooms with slender, inconspicuous sticks, tied with dull green thread.

FRUIT GARDEN.

APPLE TREES ATTACKED (R. J. G. R.).—The Apple twigs have been attacked by woolly aphis, and probably by canker. The trees are, there is little doubt, attacked in the stem, and the canker spots should be cut out and the wounds painted with Stockholm tar or lead paint.

VINE LEAVES INFESTED WITH THRIP (W. G.).—The leaves are badly infested with thrip. It is difficult to kill without at the same time injuring the Vine foliage. The only way is to fumigate with Tobacco paper or rag, or with XL All; or, if you have time and patience, sponge the leaves of the Vines with warm water and soft soap. If you fumigate, you will require to do so on three successive evenings before you can get rid of the pest. Be careful not to fumigate with too strong doses of XL All.

BLACKBERRIES (T. E. W.).—If you do not grow the Loganberry, you should do so. It is the strongest grower and the heaviest cropper of all the Bramble type. It is a cross between the Raspberry and the Blackberry. The flavour is not over-sweet, even when quite ripe, but it is grand for tarts and jellies. Another new Bramble berry you should try is the Newberry, also the Phenomenal and the Hailshamberry. The best pure Blackberry is *Rubus laciniatus*, or Parsley-leaved as it is commonly called. This is a good grower, crops heavily, and the fruit is large and of good flavour. The bushes should be planted 10 feet apart.

GRAPES AFFECTED BY MILDEW (Borough).—The sample of Grapes sent is badly affected by mildew. It is a pity, as the Vines are evidently well grown and the bunches good in size and berry. There is nothing better than to dredge the affected parts over thickly with flowers of sulphur, leaving it on for twenty-four hours, and then syringing off with clear rain-water. Once Grapes are attacked by mildew, the marks cannot be eradicated; but the above treatment will kill the mildew. No one knows for certain the causes predisposing Vines to this disease; but we believe that injudicious ventilation in cold weather is one fertile cause. Be sparing of front air when cold winds prevail.

ABOUT PEARS (Ilea).—No; the pollen was not lost, but it is quite possible that the lack of fruit is due to want of pollen, for Doyenné du Comice is better for pollen from another variety altogether. In the case of this tree, it might be well to place near it a branch of another variety at flowering-time, so as to get the pollen carried on to it. Yes; prune your gridiron-shaped tree in the way suggested. "Pinching out" means pinch off by means of the finger and thumb. The small Pear is attacked by the Pear scab. Spray with copper sulphate during winter (1lb. to twenty-five gallons of water) and with half-strength Bordeaux mixture as soon as the petals fall, and again in June. The other Pear is affected with the same disease.

PEACH SHOOT DISEASED (W. F. C.).—The shoot is badly infested with black fly in all stages of growth. If you shake the branch over a piece of white paper, you will easily see the insects crawling about. The way to kill them is to steep the branches in the following emulsion of soft soap. Until these pests are got rid of, it is impossible for the foliage to grow. Take a claretglassful of soft soap and the same of paraffin. Mix in a quart of warm water. This will form a creamy emulsion. Add another quart of water, and the emulsion will be ready for use. Apple Mannington's Pearmain is a good Christmas dessert variety and a fairly constant bearer. Perhaps the trees want root-pruning.

KITCHEN GARDEN.

TOMATOES (G. H. P.).—There is no fungus disease present in the Tomatoes. They have not had a sufficient supply of potash. Give a little sulphate of potash in the water used for watering at intervals of a week.

TOMATO PLANTS NOT FRUITING (Miss Hall).—The Tomato is a sun-loving plant. It cannot be satisfactorily grown in a shady position, and we think that the chief reason for your plants not bearing as they ought is due to the shade of the fine foliage. The best thing you can do another year is to cut the plants down to the second leaf above the last cluster of fruit, and then top-dress the plants with the following compost: To a bushel of new, sweet loam add half a gallon of well-decayed farmyard manure, after passing it through a 1-inch-mesh sieve, and one pint of bone-dust, mixing them well together. Take away some of the old surface-soil and replace with the new compost, pressing it down hard. Having done this, remove the plants to a warm, sunny and sheltered corner of your garden out of doors. Here you will find they will soon make new, sturdy, fruitful growth and set their fruit easily, provided the plants are well looked after in the way of watering, &c. Confine the new growth to one shoot (one stem) and pinch off laterals. The plants may not ripen all the fruit before cold weather sets in, but they can then be taken under glass to finish the process.

MISCELLANEOUS.

SULPHATE OF IRON (J. W.).—We believe there is no manurial value in this article excepting that it enriches the colour of Roses, and also, as a correspondent suggested in our columns, it may strengthen the scent. Artificial manure may be safely kept for some months if it is in a rainproof shed. It need not be kept airtight.

INJURY TO HORSE CHESTNUT LEAVES (Mrs. G. C.).—We regret that we are unable to say what is the cause of the Horse Chestnut leaves being damaged so badly, unless they are in the way of fumes from a chimney, but perhaps you will send us more specimens when the injury first makes itself evident next year.

PRESSING COLOURED LEAVES (H. W.).—Some plants with highly-coloured foliage cannot be dried very well to retain their colour, and the same refers to flowers. Quick drying is most likely to prove successful. Porous paper should be used, and it should be changed frequently, taking care to dry it thoroughly after being in use. There is no other practical way of drying plants, and the loss of colour cannot be helped, though for many years people have looked for a way to avoid it.

INSECTS FOR IDENTIFICATION (T. F.).—The insects are aphides, and apparently the common dolphin or black fly of the Peach and Cherry. They had been attacked by a fungus, which preys upon them and destroys them; this accounts for their peculiar fluffy appearance. They will, if all are like these, not need destruction, for they are already naturally destroyed, but if not, the Peach, if under glass, requires to be fumigated. If in the open it should be sprayed with a nicotine preparation.

AQUARIUM (U. S. L.).—We know of no "ornamental" shrub that would be always green and likely to succeed in your conservatory pond. There are Water Lilies, Grasses, Rushes and other forms of vegetable-life which would be quite happy if partly or wholly submerged; but few of these would be evergreen, and none capable of creeping round the walls. Cement is hard, impervious and unsympathetic to plant growth, hence any draping of the sides of the tank or pond should be done from the surface margin of the same. Viewing your enquiry in detail, we doubt our ability to assist you as it stands, and think possibly you might prefer to give us some fuller particulars. Among these, the minimum temperature of the conservatory would be of some importance.

FAIRY RINGS ON LAWN (W. C. D.).—It is very little use trying to kill the fungus which forms fairy rings with sulphate of iron on the dry slopes you mention, for to do any good it is necessary to soak the ground to a depth of 9 inches or 12 inches with the sulphate of iron solution, and from what we surmise that is not possible. A good plan to adopt is to remove the soil from the centres of the diseased areas to 6 inches beyond the outer margins and to a depth of 12 inches, and fill up the trenches with fresh soil from some other position. The soil removed may be used on cultivated land, but not on grass land. Whether the banks should be removed bodily is a point we are not in a position to decide, for that depends solely on the character of the surrounding ground. The fungus will not spread from the inner parts of the circles, therefore there is no necessity to remove soil from those parts.

VARIOUS QUERIES (Ignoramus).—Your plants of *Primula malacoides* would appear to have devoted more of their energies to the production of foliage than of flowers. As, however, they continue to bloom throughout the autumn, winter and spring, it is more than possible that this defect will be naturally remedied and the plants give perfect satisfaction later on. After the Saxifrage has flowered, it should be left alone on the rockery, and not lifted and then taken under glass. The side shoots, when sufficiently advanced, may be taken off and potted into small pots, and in this way the Saxifrages in question can be increased. After potting, these offsets are best protected in a frame. If a particularly good offset develops, it may be allowed to remain to in time take the place of the present plant. Your better plan will be to replot the Lilliums named as soon as the flowering stems die down, and keep them during the winter in a cold frame. Till growth recommences they will need just enough water to keep the soil slightly moist, but no more. Some Lilies are far more prone than others to remain dormant the first season after planting. Those least affected by removal are the species which produce a large quantity of roots at the base of the flower-stem, such as *Lilium croceum*, *L. davuricum*, *L. auratum*, *L. speciosum* and *L. longiflorum*. These roots serve to support the flower-stem while the roots at the base of the bulb are becoming established. Some species, on the other hand, have stout, deep-descending basal roots and very few stem ones. These need at least a season to become established before they flower well. To this class belong Lilliums Martagon, szovitzianum, chalcedonium and others. Even those that as a rule flower well the first season after transplanting often remain more or less dormant if they are moved late in the season. The Incarvilleas can be readily grown in deep pots, and are then very useful when in flower for the decoration of the greenhouse. Pot them late in the autumn when dormant. We cannot understand your plants of *Erigeron aurantiacus* going off in the winter in the way described by you. Perhaps the drought last autumn was too severe; but, even then, that would not hold good the preceding year. We have, however, noted that this *Erigeron* often does better where partially shaded than in full sun. We should advise you to again leave *E. aurantiacus* outside during the winter, and if in a dry, well-drained spot, *E. mucronatus* as well. The mauve *Erigeron* mentioned by you is doubtless *E. speciosus*.

ORIENTAL POPPIES (M. I.).—The Poppies are black mostly on account of the damp weather of the past two months, causing the decay of their foliage. The lower parts are apparently healthy, and we should expect them to break away quite well next spring. Sprinkle a little mortar rubbish or powdered lime about the surface of the soil near the roots.

NAMES OF PLANTS.—*G. Douglas Westland.*—Impatiens Roylei.—*R. Akers.*—1, Sedum Lydium glaucum; 2, S. Lydium; 3, S. album; 4, S. rupestre; 5, S. reflexum.—*G. E. W.*—1, Peperonia argyrea; 2, Carex Moritowii; 3, Crassula coccinea; 4, Carex brunnea variegata; the injury to the leaves of Begonia Gloire de Lorraine appears to be due to the over-use of an insecticide, this being allowed to settle on the foliage.—*Quizzy.*—1, Aster Novi-Belgii seedling; 2, A. Robert Parker; 3, A. Novi-Belgii variety; 4, A. ericoides; 5, A. Novi-Belgii variety; 6, A. Novi-Belgii variety; 7, A. Novæ-Angliæ pulchellus; 8, A. umbellatus; 9, A. Novi-Belgii variety; 10, A. seedling; 11, A. Novi-Belgii variegatus; 12, A. Novæ-Angliæ ruber; 13, A. Novi-Belgii variety; 14, A. diffusus horizontalis. It is impossible to identify seedling Asters, and the names given are only approximate.

NAMES OF FRUIT.—*E. A. Turner.*—1, Warner's King; 2, Worcester Pearmain; 3, Kedleston Pippin; 4, Newton Wonder; 5, Boston Russet; 6, Ribston Pippin; 7, Beurré Bachelier.—*Renraw.*—Pears: 1, Gansel's Bergamotte; 2, Thompson's; 3, Uvedale's St. Germain; 4, Mme. Treve; 5, Beurré Goubault; 6 and 7, Pitmaston Duchess. Apples: 1, Gravenstein; 2, American Mother; 3, Hawthornden.—*B. S.*—1, Olivier des Serres; 2, Easter Beurré; 3, Conference.—*J. E. Gardiner.*—1, 2 and 3, all Wellington. This is the same as Dumelow's Seedling and Normanton Wonder. 4, Blenheim Orange; 5, King of the Pippins; 6, 7, 13, 15, 16 and 18, names detached and all mixed up when received; 8, Claygate Pearmain; 9, Scarlet Nonpareil; 10, Tom Putt; 11, Cox's Orange Pippin; 12, Hereford Beeding; 14, Hall Door; 17, Uvedale's St. Germain.—*E. K. Tidy.*—1, Beurré Clairgeau; 2, Doyenné du Comice; 3, Pitmaston Duchess; 4, Thompson's; 5, rotten when received.—*B. K.*—Hambledon deux Ans.—*G. Holgate.*—1, Gooseberry Apple; 2, Kedleston Pippin.—*J. C. Henry.*—1, Duchesse d'Angoulême; 2, Knight's Monarch; 3, Pitmaston Duchess; 4, Beurré Diel.—*C. W. E. Rauckliffe.*—1, Hall Door; 2, Cox's Pomona; 3, Warner's King; 4, Golden Noble; 5, Brown Beurré.—*A. R. T.*—1, Hawthornden; 2, King of the Pippins; 3, Golden Harvey; 4, Lady Henniker; 5, Beauty of Kent; 6, Potts' Seedling; 7, Withington Pippin.—*J. H. C. A.*—Northern Greening; B, Dumelow's Seedling.—*W. Copeland.*—Pear Conference; Apple Blenheim Orange.

SOCIETIES.

SANDHURST, YATELEY AND DISTRICT GARDENERS' ASSOCIATION.

A MEETING was held on Tuesday, October 8, there being a good attendance present. Mr. A. Collins occupied the chair, and a paper on "Vegetable Culture" was read by Mr. F. W. Benham of The Gardens, Barracane, Crowthorne, in which short cultural notes were given on the following vegetables: Asparagus, Broad and Runner Beans, Cabbages, Cauliflower, Carrots, Onions, Peas, Beet and Potatoes. An excellent discussion followed, in which a good number of members took part. The different varieties of vegetables, insect and fungoid pests, such as the Onion and Carrot fly, Potato disease and the clubbing of the Brassica family, claimed much attention. At the close the usual vote of thanks was passed to Mr. Benham for his most useful paper. Mr. M. Goddard, The Gardens, Ambarrow, Sandhurst, staged some excellent Tomatoes and blooms of double Begonias.

THE HORTICULTURAL CLUB.

ON Tuesday, the 8th inst., this club opened its winter series of dinners and lectures by an invitation to a number of the members of the Midland Reafforestation Association, whose organising secretary, Mr. P. E. Martineau, gave, after the dinner, at which Sir Harry J. Veitch presided, a lecture on "Afforestation in the Black Country," illustrating his remarks with a considerable number of lantern slides. Among the guests were Sir Richard Paget, Lady Lockyer, Miss Lee Brown, Messrs. R. L. Robinson, Percy Green, M. C. Duchesne, W. W. Watts and others connected with the association. In the Black Country embracing Walsall, Dudley and other large coal-producing and coal-consuming districts, the *débris* from the pits and furnaces has been allowed to accumulate on the surface until immense areas are simply smothered under extensive hillocks, which, unattended, reduce the country to an all but barren and desert-like waste of many thousands of acres. The object of the association is the afforestation of these areas by the judicious planting of suitable trees, such as the Poplar, Birch, Alder, Willow, Ash, &c., which experiment has proved to be capable of not only living, but thriving in defiance of the vapours emanating from the works, and in many cases even from the still burning pit tips and spoil banks, as they are locally termed. A number of photographs showed clearly that it was possible by judicious action in this direction to utterly transform the locality dealt with, dreary wastes and veritable eyesores assuming the aspect of picturesquely wooded slopes, or even of pretty parks, with comparatively little outlay, where, left to themselves, nothing better than coarse grasses would

have made their appearance. In the discussion which followed the lecture, Sir Richard Paget, Messrs. Duchesne, R. L. Robinson, Percy Green and others participated. A hearty vote of thanks to Mr. Martineau, whose address is Bentley Heath, Knowle, Warwickshire, concluded the meeting.

BOURNEMOUTH GARDENERS' ASSOCIATION.

A VERY successful concert was held on October 15 in aid of the Royal Gardeners' Orphan Fund. A concert is arranged by the committee and members every year, and it is very successful. In the absence of the president, who had to attend a conference in Leeds, Mr. G. H. New of Bournemouth ably occupied the chair. In explaining the object of the concert and the Orphan Fund, he made an appeal for the support of all present. No charge is made, but in the interval a collection is taken. This year it amounted to £3 9s. 9d. The artists give their services free, so that the total sum is added to the fund. There are three children in the Bournemouth district receiving benefit from the fund.

EAST ANGLIAN HORTICULTURAL CLUB.

AT the October meeting of this club, held at Norwich, a very interesting paper was read by Mr. C. H. Fox, gardener to Lady Mansel, Catton House, Norwich, on "Deciduous Flowering Trees and Shrubs." He touched upon some twenty-four varieties and gave practical details of treatment, especially as to position and planting. A capital discussion followed, during which the subject of pruning came largely in for review. An interesting feature upon the exhibition tables were some plants of Figs in 8-inch pots, profusely covered with fruits. These were grown from eyes inserted just eight months ago. Apples were staged in profusion, and a good display of early Chrysanthemums brightened up the room.

CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

THE first meeting of this association was held in the County Laboratories on the 4th inst. The president, Mr. E. H. Christy, presided. Previous to the lecture an exhibition of fruit was held. Unfortunately, the entries were not very large, but some good dishes were to be seen. Mr. Heath gained the first prize, Mr. Kirby the second, and Mr. Overall the third. After the exhibition Mr. F. J. Chittenden, F.L.S., Director of the Royal Horticultural Laboratories at Wisley, gave his lecture on "Some Plant Diseases" in quite a novel way. Instead of selecting certain diseases himself, he allowed the members to choose any plant disease they liked, thus giving them the opportunity to hear something about their worst enemies. Before dealing with the chosen diseases Mr. Chittenden gave a brief survey of the functions of the root, stem and leaves, showing how, when attacked by disease, they cease to perform their functions properly, therefore putting the plant into an unhealthy state. Dealing with the streak in Sweet Peas, Mr. Chittenden said it was a fungus attacking the roots, brought about by the weakening of the root action, caused by over-watering and bad cultivation. As a preventive he advocated good cultivation and careful watering. Speaking on the cracking of Pears, the lecturer said it was due to black scab fungus, and might be prevented by pruning out all the dead wood and spraying the buds just before they opened with a solution of copper sulphate. Other diseases dealt with were Tomato and Cucumber leaf-spot and bitter-pit in Apples.

PARKSTONE (DORSET) GARDENERS' ASSOCIATION.

FRUIT SHOW AND LECTURE.

THE members held their annual fruit exhibition on October 19. There was a very good display of highly-coloured Apples and large, well-grown Pears. Mr. T. Alexander won in the class for two dishes of Apples, dessert and cooking, respectively, staging Annie Elizabeth and Cox's Orange Pippin, both lots of good size and highly coloured. Mr. A. C. May was second with grand Peasgood's Nonsuch and Blenheim Orange, Mr. E. G. Cox being a good third. In the class for one dish of Apples, dessert, Mr. A. C. May was first with Sturmer Pippin, Mr. Alexander second with King of the Pippins, and Mr. W. Camp third with Golden Drop. In the class for a dish of cooking Apples, Mr. Cox won with a very fine dish of Peasgood's Nonsuch. Mr. May was second with Lord Derby, and Mr. Camp was third. For one dish of Pears, Mr. C. Gould was awarded first prize for very large fruits of Pitmaston Duchess. Mr. Rattue was second with unnamed specimens, very fine in appearance; and Mr. Cox third, also with Pitmaston Duchess. A first-class certificate was awarded to Mr. Alexander for twenty-four dishes of Apples and Pears, all staged in good condition.

The same evening Mr. G. Garner of Bournemouth gave a lecture on "Fruit Culture." He dealt chiefly with the cultural details connected with Apples and Pears, and also with the Grape Vine. For Apples and Pears he advocated deep trenching and the firming of the soil afterwards, autumn planting in preference to spring, with summer and autumn pruning and top-dressing. He recommended cordon, bush and pyramid forms of training in preference to high standards in open quarters, and the maintenance of a good balance between root and branch growth. The lecturer, in referring to Grape culture, advised growers to have shallow, well-drained and well-ventilated borders. He handed some sketches to the members showing the way in which the pollen is distributed, and the sectional views of the berries and stones showing the stoning process. Shankling of berries, spitting, watering and feeding were all dealt with. Dr. Crallan, the president, occupied the chair. A good

discussion followed, and at the close a vote of thanks was passed to both chairman and lecturer. There was a very large attendance of members.

THE NATIONAL SWEET PEA SOCIETY'S ANNUAL GENERAL MEETING.

THE annual general meeting of the members of the above society was held in the Hotel Windsor, Victoria Street, Westminster, on the 17th inst., Mr. Robert Sydenham, the president, in the chair. After the minutes had been taken as read, letters were considered, and the report was then read and opened for discussion. Following are some of the most salient features of the report.

AWARDS TO NOVELTIES.—The floral committee met at Sutton Green on July 4 and at Burbage on July 5. Every member was present each day. An award of merit was granted to each of the following: King White (Trial No. 2), sent by Messrs. Alex. Dickson and Sons, Newtownards and Belfast; white, Lady Miller (Trial No. 22), sent by Mr. A. Malcolm, Duns, Berwick; apricot or cream, suffused with pink, Decorator (Trial No. 60), sent by Messrs. Dobbie and Co., Edinburgh; old rose, a waved form of Rose du Barri, Decorator (Trial No. 61), sent by Messrs. G. Stark and Son, Great Ryburgh; rich crushed strawberry, Decorator (Trial No. 83), sent by Mr. A. Malcolm, Duns, Berwick; old rose, a waved form of Rose du Barri, Agricola (Trial No. 135), sent by Mr. Robert Bolton, Warton, Carnforth; bluish, suffused rosy lilac, Improved Bertrand Deal (Trial No. 136), sent by Mr. Bertrand W. Deal, Brooklands, Kelvedon; rosy mauve, R. F. Felton (Trial No. 162), sent by Mr. Robert Bolton, Warton, Carnforth; lavender. Trials Nos. 60, 61 and 83 were declared to be identical, and the committee recommended that one and the same name be used for them. This recommendation has been accepted. The provisional silver medal award was made in favour of Trials No. 22 and No. 162, the committee considering these to be of equal merit.

MEMBERSHIP.—One hundred and eighty-six new members were added to the list, and at the time of closing the accounts about the same number of old members had omitted to pay their subscription for 1912. Doubtless many of these omissions will be rectified before the new list of members is issued. There are over one thousand two hundred members, and these include some resident in Japan, Peru, Russia, Switzerland, France, Germany, Australia, New Zealand, Canada, South Africa and the United States.

MONEY MATTERS.—The society is to be congratulated upon its sound financial position. Early in the year £50 was placed on deposit, this amount bringing the society's reserve fund up to £200. The profit on the year's working was less than in 1910 and 1911, but this may be largely accounted for by the shortening of the financial year by two months. Accounts were closed on September 30, and as September is now one of the holiday months and is a busy time for seedsmen with crops to inspect and harvest, there were many unpaid subscriptions on that date. However, the committee hope that these matters will soon right themselves. The society has no outstanding liabilities except in respect of members who have already paid their subscriptions for 1913. Since the books were closed, other subscriptions have come in, making a balance in hand of £86 7s. 1d. Holding two sets of trials has necessarily increased the expenditure in this direction, and the alteration of the tiered staging for the exhibition is an extra item of expense. On the other hand, the item for "prizes presented" shows a decrease of £31 4s. as compared with 1911, the sums being £59 9s. and £90 13s. respectively. But this decrease is more apparent than real, because many friends purchased and presented plate to the value of £28 7s. for competition in the district classes.

AFFILIATED SOCIETIES.—In previous years little has been said concerning the excellent work the many affiliated societies are doing to increase the popularity of Sweet Peas. The silver medals and certificates are very keenly competed for among the amateur members of about one hundred and twenty societies, and these societies are spread over nearly every county in the United Kingdom, in South Africa, in Australia and in far-off New Zealand.

NEXT YEAR.—Arrangements have been already made for holding the society's trials at the Burbage Experiment Station, Hinckley, in 1913, under the conduct of Major C. C. Hurst, F.L.S. The committee understands that it will not be possible to hold trials at Sutton Green again, therefore a larger test will be made at Hinckley. The Annual and schedule for 1913 will be issued to members during the first week of December, 1912.

The election of officers was next proceeded with. Sir George Trevelyan, Bart., was elected president; Mr. Edward Sherwood, treasurer; Mr. Herbert Smith, chairman of committee; Mr. R. Gluyas, auditor; and Mr. C. H. Curtis, hon. secretary. It was unanimously decided to grant Mr. Curtis an honorarium of seventy guineas for his services in connection with the society. The members of the general committee were all re-elected with the exception of Mr. S. B. Dicks, Mr. R. Hooper Pearson and Dr. Phillips, who were ineligible as per rule. Their places were filled by Messrs. J. H. Dick, A. Wilkinson and B. W. Deal. The following were elected to the floral committee by ballot by the members present: Messrs. T. Stevenson, T. Jones, A. Ireland, R. Bolton, G. W. Leak, H. E. Bide, A. Hallam, F. H. Chapman and H. T. Tigwell. Captain Ashworth proposed the following: "It is recommended that the general committee circulate to all members, for special vote by post, all proposals for the modification of the rules of the society that may be brought forward before the next annual meeting." This was carried. Particulars of the conference held in the evening will be found on page 538.

ROYAL HORTICULTURAL SOCIETY.

THE usual fortnightly meeting was held at Vincent Square, Westminster, on Tuesday last. Chrysanthemums, Michaelmas Daisies and winter-flowering Begonias were prominent among flowering plants, and hardy shrubs, stove plants and hardy fruits were alike well represented. For the time of year the show was regarded in every way a satisfactory one.

FRUIT AND VEGETABLE COMMITTEE.

Present: C. G. A. Nix, Esq. (chairman), and Messrs. W. Bates, J. Davis, E. Beckett, W. Pope, G. Reynolds, A. Bullock, J. Jaques, Owen Thomas, J. Harrison, H. S. Rivers, A. Grubb and A. R. Allan.

Messrs. George Bunyard and Co., Maidstone, sent a capital collection of Apples and Pears, all neatly arranged in baskets. Among the best of the dessert Apples we observed Ribston Pippin, Cox's Orange Pippin and Allington Pippin; cooking—Twenty-Ounce, Norfolk Beauty, Belle Dubois and Hambling's. Varieties such as Emperor Alexander, Beauty of Kent and King of Tompkin's County were remarkable for their very high colour. Among the best Pears were Beurré Clairgeau, Doyenné du Comice, Beurré de Jonghe, Charles Ernest and Beurré Alexandre Lucas. Silver-gilt Banksian medal.

From the Purfleet School Garden, Essex, came a highly-creditable collection of Apples, Pears, Nuts, Grapes and late Plums, grown by boys aged eleven to fourteen years. The collection was very nicely arranged, and received the society's silver Knightian medal.

Melons were shown by Miss C. M. Dixon, Elmcroft Nurseries, Edenbridge, Kent. The varieties Sutton's Scarlet and Superlative were represented in small and serviceable-sized fruits.

Messrs. Dobbie and Co., Edinburgh, were awarded a silver Banksian medal for a group of Parsley grown in pots—a novel and useful exhibit.

A good assortment of Apples, Pears and Medlars was sent by Mr. C. E. Baring Young, Oak Hill Park, East Barnet (gardener, Mr. J. G. Walker).

An award of merit was granted to Mr. W. Pope, Newbury, for Apple Guelph, a seedling from The Houbion x Rival, subject to the variety being seen in September, 1913.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), Sir Jeremiah Colman, and Messrs. Gurney Wilson, J. Wilson Potter, R. G. Thwaites, F. J. Hanbury, T. Armstrong, A. McBean, C. H. Curtis, W. Cobb, J. Charlesworth, J. Cypher, W. H. Hatcher, J. E. Shill, H. G. Alexander, A. Dye, W. H. White, C. J. Lucas, S. T. Low, W. Bolton, J. S. Moss, B. B. White and de B. Crawshaw.

A group of Orchids, comprising Cattleyas in variety, was sent by Mr. H. S. Goodson, Fairlawn, Putney, S.W. (gardener, Mr. G. E. Day). Silver Banksian medal.

A silver Flora medal was awarded to Messrs. J. Cypher and Sons, Cheltenham, for an interesting group, mainly of Cypripediums.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, showed a fine lot of Cattleyas and Lælio-Cattleyas, including L.-C. dominiana, Cattleya Iris, and L.-C. callistoglossa, also the blue Vanda cærulea and Dendrobiums in variety. Silver Flora medal.

A similar award was made to Messrs. Sander and Sons, St. Albans, for a miscellaneous group, in which Cattleya hybrids were the chief feature.

A silver Flora medal was awarded to Baron Bruno Schröder of The Dell, Englefield Green, for a collection including many novelties.

Messrs. Hassall and Co., Southgate, N., received a silver Banksian medal for a superb collection of Cattleyas, such as Fabia and hardyana.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Drury, J. W. Barr, W. B. Cranford, W. J. Bean, J. Green, H. J. Chapman, C. Blick, J. F. McLeod, W. Howe, J. Jennings, Edward Mawley, E. H. Jenkins, W. P. Thomson, C. E. Pearson, C. E. Shea, H. J. Jones, C. Dixon, J. Dickson, R. C. Reginald Neville, R. Hooper Pearson, A. Turner, W. J. James, E. A. Bowles, W. Cuthbertson and W. G. Baker.

Messrs. James Veitch and Sons, Limited, Chelsea, arranged across the western end of the hall a splendid bank of fine-foliaged subjects showing the wealth and beauty of the plants of tropical or subtropical lands. The group, as also the grouping, was of a highly meritorious character, and showed many things to great advantage. The Pitcher Plants (Nepenthes) on raised pedestals were a great attraction, many being of exceptional rarity. The centre of the group was of Orchids, Epidendrum vitellinum majus, Vanda cærulea, Cypripediums, Odontoglossums, and hybrid Lælias and Cattleyas. Behind these appeared superbly-grown examples of Alocasia, Phoenix Roebelinii and the like, while throughout the entire length of the background appeared the graceful Cocos flexuosa in examples 12 feet or 15 feet high. The Nepenthes constituted a most valuable contribution, as such as N. ventricosa, whose greenish pink-tinged pitchers are much contracted near the middle, we never remember to have seen in such splendid condition before. Other good examples of this group were N. Sir W. T. Thiselton-Dyer, whose very handsome pitchers are streaked with crimson, N. mixta, N. Morganii, N. hookeriana elongata, N. Chelsonii excellens, N. Tiveyi (a strikingly beautiful form) and N. amesiana. Of those shown, Sir W. T. Thiselton-Dyer had the largest and most picturesquely-formed pitchers. Dracenas were also an important class, D. deremensis Bausei, with pointed leaves, having a central variegation of white. It is comparatively new and very distinct. D. goldiana, D. godseffiana, D. Victorii, D. sanderiana and D. Parrei (a green-leaved form) were all important and good. Alocasias in variety were very handsome. Crotons in their brilliant and telling hues gave a welcome touch of colour here and there, and, with an occasional grouping of Lilium speciosum rubrum, afforded all that was needed in this respect. "Good wine needs no bush," and well-cultivated examples such as those to which we refer are sufficient to the accompaniment of good arrangement to demonstrate their own excellence.

Mr. L. R. Russell, Richmond, arranged along the entire side of the hall facing the entrance a very remarkable collection of evergreens, conifers and berry-bearing plants. In large degree, however, Ivy, Holly, Yew and Box predominated, with graceful Bamboos in the background. Here and there the crimson-leaved Vines, Vitis Thunbergii, V. henryana and others afforded a welcome touch of colour, and not less so the handsomely variegated Ivy (Hedera dentata variegata). A central group of Aucuba japonica vera in fruit was most effective in the foreground, while such plants as Symphoricarpos, Pernettyas and Crataegus were all noted in groups and in excellent fruit. The great heads of the standard-grown Ivies constituted quite a feature, while the excellence of the whole was a tribute to successful cultivation within a few miles of London. In addition to the main group, two long tables were filled with similar plants.

Messrs. Allwood Brothers, Hayward's Heath, showed a few Carnations in vases and stands, the more conspicuous being Fairmount (heliotrope), La Rayonnante (buff and yellow, with occasional red streaks), May Allwood (rose scarlet), Baroness de Brien, and Rosette (which in youth is of intense cerise colouring).

A group of three dozen well-grown examples of Begonia Gloire de Lorraine came from Mrs. Percy Westmacott, Rose Mount, Ascot, Berks (gardener, Mr. G. Gumbrell), the plants being particularly well grown and furnished with flowers. The individual examples were nearly two feet in height, and very fresh and clean-looking.

Messrs. Cannell and Sons, Swanley, Kent, staged an interesting lot of Cacti and succulents against a background of Lotus pelioryncus, whose hoary-looking foliage constituted a good foil. Mammillarias, Crassulas, Sempervivums, Echeverias, Aloes, with Cereus and Opuntia, each had its representatives in the group. A few trusses of richly-coloured Cannas also came from Messrs. Cannell. A rather remarkable plant of a coniferous habit of growth is Artemisia sacorum viride, a new and highly-ornamental annual from China. The examples shown were about five feet in height and of quite an elegant bearing.

Messrs. S. Bide and Sons, Farnham, had a small and highly-attractive group of Begonias Saxony and Bavaria, of Continental origin. The flowers and seed-pods are coral red in the former and pink and white in the latter, and in or out of flower are singularly ornamental-looking. Bavaria is particularly elegant and good, the dichotomously-formed flower-branches being most effectively disposed.

Mr. Philip Ladds, Swanley, set up a small group of chiefly narrow-leaved Crotons, young plants of 15 inches or so high, and thus well suited to table decoration.

Mr. Martin Silsbury, Shanklin, exhibited a stand of Japanese Chrysanthemums of his own raising, Japan (bronz yellow) and Hon. Mrs. Lopes (self yellow) being the best of those shown.

Messrs. Stuart Low and Co., Enfield, displayed a good group of Carnations of the Perpetual-flowering class in stands and large vases, such varieties as Mrs. C. W. Ward, Carola, Rose Enchantress, White Enchantress, St. Nicholas (a good scarlet), Beacon, Baroness de Brien (pink), Mikado (deep heliotrope) and Lady Allington being well displayed. Rosette, of good cerise colour, was also well shown. They also had a small group of Violets in pots, and a couple of nicely-flowered examples of the Glory Pea (Climanthus Dampieri).

Messrs. James Veitch and Sons, Limited, Chelsea, brought the first display for the season of their winter-flowering Begonias, arranging a table of them in capital form. The Gem (crimson scarlet), Fascination (salmony bronze), Mrs. Heal, Julius (pink) and Elatior (rose cerise) were conspicuously good and in large groups. Other good plants included Leonotis Leonurus and Salvia azurea. A set of the sports that have originated from Chrysanthemum Caprice du Printemps were seen in Red Cap, Yellow Cap, Purple Cap, and Kathleen Thompson were also noted. These are singularly dwarf-growing, and well suited to small pot cultivation. Large-flowered varieties and some free-flowering singles were also on view.

The Misses Price and Fyfe, Grove Park Nursery, Lee, S.E., exhibited a nice lot of Carnations, such as Mikado, Enchantress, May Day and White Perfection, and, following these, vases of Chrysanthemums ornamented with Beech sprays. H. W. Thorp (fine incurved white), David Ingamells (golden) and others of the decorative class were all nicely arranged.

Messrs. W. Wells and Co., Limited, Merstham, displayed a capital table of Chrysanthemums, inclusive of single, decorative and exhibition sorts. Mrs. Henshaw (white), Miss Margaret Walker (bronze, single, very large), H. W. Thorp (white incurved), Mrs. G. L. Wigg (canary yellow, exhibition variety), Wells' White, Caterham Bronze (single), Celia (yellow, single) and Cranford (yellow) were among the best in a very showy lot.

The Misses Hopkins, Shepperton-on-Thames, had a small group of alpine on rockwork, Sedums, Saxifrages, Potentilla Miss Willmott and pink Daisies being freely displayed.

Mr. P. Purnell, Woodlands, Streatham Hill, S.W., displayed a group of greenhouse Ferns and flowering plants, Celosias, Nerines, Primula obconica and the like.

Mr. W. A. Manda, St. Albans, Herts, showed some excellent Ferns, of which Polypodium mandaium, Nephrolepis Millsii, N. Giatresii and N. Whitmanii were some of the more distinct. The first-named is particularly striking and handsome.

Messrs. Whitelegg and Page, Chislehurst, showed a fine table of the Michaelmas Daisy Climax, also the single Chrysanthemum Miss M. Rosser, which is very attractive in colour.

Miss Dixon, Elmcroft Nurseries, Edenbridge, Kent, displayed Violets and Violets, both in considerable variety.

Mr. Leslie T. Greening, Richmond, had a small exhibit of rockwork in conjunction with a miniature waterfall, arranging it with Ferns and alpine.

Mr. G. Prince, Oxford, staged some capital Roses, Rayon d'Or, Lady Hillingdon, Lyon Rose and Anna Olivier being the best in a large display.

Messrs. H. J. Jones, Limited, Lewisham, displayed a very fine lot of Michaelmas Daisies, particularly so for the season of the year. White Diana, Climax, Coombe

Fishacre, Royalty, cordifolius albulus and late splendens were among the best. Chrysanthemums Charles Kingsley (golden yellow, single), Mrs. Loo Thomson (canary yellow, single) and Hon. Mrs. John Ward (yellow, Japanese) were all well shown.

Mr. T. Page, Hampton, showed a few Chrysanthemums, Mrs. John Maher (white, decorative) being very fine and pure.

Messrs. Young and Co., Hatherley, Cheltenham, had some fine vases of Carnations, A. S. Montgomery, Christmas Cheer (a brilliant scarlet), White Perfection, Cheltonian, Duchess of Devonshire (finest crimson), May Day, Rose Dorée and Rose Enchantress being among the best in an excellent lot.

Messrs. William Cutbush and Sons, Highgate, N., displayed a fine lot of Carnations in conjunction with Roses in pots. White Perfection, Lord Rothschild, King Manoel, Mrs. L. Mackinnon (brilliant scarlet, very handsome and full), Lady Coventry, Edna (fine heliotrope shade), May Day and the beautiful crimson Countess of Lathom were some of the best exhibited.

Messrs. T. S. Ware, Limited, Feltham, displayed a great variety of alpine in pans. Aster acris alba, Veronica pimeloides, many Sedums and Saxifrages, and others of the choicest description were noted in an extensive collection of these plants. Kniphofia modesta, with white flowers, was also noted.

Messrs. H. B. May and Sons, Edmonton, contributed a table of flowering plants, as Primula obconica, Cyclamen in variety, Chrysanthemums, such as Cranford Yellow, Felton's Favourite, Yellow Caprice, White Caprice and Improved Champ d'Or, with Begonias of the Gloire de Lorraine type in variety. Adiantum cuneatum micropinnulum was also in evidence.

Messrs. Cragg, Harrison and Cragg, Heston, staged a nice lot of Chrysanthemums of the decorative class, such as David Ingamells (golden), Juliet (reddish chocolate), F. W. Thorpe (pure white), Crimson King and Cranfordia (yellow). Mensa and Florrie King are singles, white and pink respectively; while Charles Kingsley is also single, of rich golden hue and very fine. Market Red is also good.

FLORAL COMMITTEE'S AWARDS.

Gold Medals.—Mr. L. R. Russell for Ivies and berried shrubs; and Messrs. J. Veitch for stove and greenhouse plants.

Silver-gilt Banksian Medal.—Messrs. S. Low for Carnations, &c.

Silver Flora Medals.—Messrs. May for Ferns, &c.; and Messrs. Wells for Chrysanthemums.

Silver Banksian Medals.—Messrs. Cannell for succulents; Messrs. Cragg, Harrison and Cragg for Chrysanthemums; and Messrs. Cutbush for Carnations and Roses.

Bronze Flora Medals.—Messrs. Young for Carnations; the Misses Price and Fyfe for Chrysanthemums and Carnations; and Messrs. Ware for hardy plants.

Bronze Banksian Medals.—Mr. P. Purnell for stove and greenhouse plants; and Mrs. Percy Westmacott for Begonias.

We are retaining this column week by week to take our readers on "flying visits" to our new Exhibition Warehouses and Testing Grounds at Raynes Park, Wimbledon, which are always open to the public.—JAMES CARTER and Co., The King's Seedsmen.

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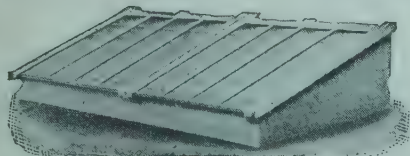


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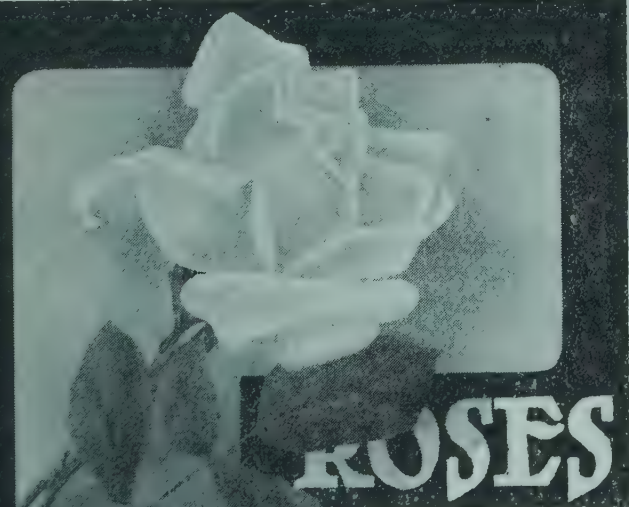
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NATIONAL CHRYSANTHEMUM SOCIETY.

AN exceptionally fine display of new and choice Chrysanthemums was staged at the meeting of the floral committee held at Essex Hall, Strand, W.C., on Monday last, the 21st inst., at three o'clock in the afternoon, Mr. D. B. Crane (chairman) presiding. Certificates were awarded to the following:

Toddles.—An exceptionally bright little single variety. The colour is brilliant crimson, with a very narrow yellow zone round the disc. Award for colour to Mr. H. W. Thorp, Durrington, Worthing.

Hon. Mrs. John Ward.—A very handsome sport from the exhibition white Japanese, White Queen. The colour of the sport is primrose, and the flower will be highly valued for the October and early November shows. First-class certificate to Mr. G. Mileham.

Master Rex.—This is a large, full, exhibition Japanese flower of deep build, with medium florets twisting and curling, building a bloom of capital substance. Colour, bright amber. First-class certificate to Mr. George Mileham, Leatherhead.

Miss Joan Miller.—Another large and handsome exhibition Japanese bloom of a spreading character, having long petals of medium width. Colour, bright rose pink, with silvery reverse. First-class certificate also to Mr. Mileham.

Mrs. John Maher.—An attractive Japanese bloom suitable for market. The blooms are of good size and of pleasing reflexing form. A solid flower, white. First-class certificate to Mr. Thomas Page, Hampton.

Sussex Yellow.—A magnificent large-flowered single with several rows of petals, medium to broad and pleasingly recurving. Colour, bright yellow. First-class certificate to Mr. Norman Davis, Framfield, Sussex.

Ideality.—This is a large-flowered single of ideal form, and is a cross between Mary Anderson and Mensa, two excellent parents. The florets are fairly broad, and recurve in most even fashion. Purest white. First-class certificate also to Mr. Norman Davis.

Mrs. Loo Thomson.—This is a beautiful primrose sport from the well-known large-flowered single Mensa, and as such is a superb acquisition. First-class certificate also to Mr. Davis.

Charles Kingsley.—A magnificent large-flowered single of ideal quality. Petals of good breadth, recurving in most even form. Colour, rich yellow. First-class certificate also to Mr. Davis.

J. W. Streeter.—This is a beautiful primrose yellow sport from H. W. Thorp, the well-known white incurved, valued both for exhibition and for decoration. The form is exquisite. First-class certificate to Messrs. Cragg, Harrison and Cragg, Heston, Hounslow.

Primrose Queen.—A large and handsome exhibition Japanese bloom of drooping form, having very long petals of medium width, pleasingly twisting and curling. Colour, bright yellow, shading to primrose. First-class certificate to Mr. Martin Silsbury, Sandown, Isle of Wight.

Commendations were granted to the following:

Vera Potterton.—A large market Japanese; blooms of solid build with fairly broad, reflexing petals. Colour, pink. From Mr. Thomas Page, Hampton.

Phyllis Cragg.—This is a refined Japanese bloom, ideal for market, having even, reflexing petals of good breadth, making a flower of beautiful reflexing form. Colour, a lovely tone of light pink. From Messrs. Cragg, Harrison and Cragg.

White Beauty.—A chaste and beautiful free-flowering single of medium size and of good form. Purest white. From Mr. Philip Ladds, Swanley, Kent.

The committee also wished to see again Alice Westbury, a cinnamon orange coloured single of promise; Maritana, a large, globular, incurved bloom of good form—colour, light yellow; Waxy White, a large, loose white Japanese; Louisa Hadwen, a large Japanese bloom of deep velvety crimson, with golden bronze reverse; and Mrs. Henshaw, a big white Japanese exhibition bloom, reminding one of Mme. Gustave Henry, but whiter. A vote of thanks was given to Mr. Martin Silsbury for a grand stand of twelve Japanese blooms.

NORTH OF SCOTLAND HORTICULTURAL SOCIETY.

THE opening meeting of the new session of the North of Scotland Horticultural Society was held in the Botanical Classroom of the Marischal College, Aberdeen, on the evening of October 16. The chair was occupied by Mr. J. McKinnon, Haddo House Gardens, who presided over a large attendance. A discussion arose over an objection taken by Mr. C. S. France to the selection by the committee of only two subjects for the competitive essays. An interesting opening address was given by the chairman, in which subjects cognate to the society's work were touched upon in an able way. Thereafter papers on the International Horticultural Exhibition at Chelsea were given by Mr. A. Robson (of Messrs. Smith and Sons) and Mr. M. H. Sinclair, in which these gentlemen gave interesting reviews of the great exhibition and referred to the salient features of the exhibits. The discussion was of an interesting character, and a hearty vote of thanks was given to the readers of the papers and to the members who had taken part in the discussion. A considerable number of exhibits were staged, including Chrysanthemums and other seasonable subjects. Messrs. Adam and Craigmile, Aberdeen, received an award of merit for Hybrid Tea Rose Bon Accord. Mr. A. Douglas, Kepplestone, also received an award for his exhibit of Chrysanthemums, which was a most meritorious one. Some superb St. Valery Carrots from Mr. W. Ironside, Banchory House, were also honoured with an award of merit.

French Chrysanthemum Society.—This society holds its annual congress in a different town every year. The one for 1912 will be held in Nantes, and in conjunction therewith the local horticultural

societies have arranged to organise a show. The date fixed is November 12 to 17.

New Park for Springburn, Glasgow.—An anonymous donor has presented a new park to the citizens of Glasgow. This is to be opened shortly, and is at Springburn, the land being valued at £13,000. Mr. Hugh Reid has been asked to perform the opening ceremony.

Paris Autumn Show.—The great autumn show of Chrysanthemums, fruit and vegetables annually held on the Cours-la-Reine, Paris, by the National Horticultural Society of France will this year be held from November 8 to 17. It is a very important show and one well worthy of a visit.

Colour Chart.—Many of our readers are acquainted with the "Répertoire de Couleurs." There is also another French work on the subject called the "Code des Couleurs." We understand that the French Chrysanthemum Society, which is responsible for the former, is about to consider the publication of a pocket edition. This will be invaluable for use out of doors and in the greenhouse, the want of portability being a disadvantage with the Répertoire.

The "Sweet Pea Notebook."—Mr. Walter P. Wright has just issued the 1913 edition of his "Sweet Pea Notebook," which is a decided advance on the 1912 edition. Those who are interested in Sweet Peas will find in its pages a wealth of information in a concise form. Diseases of Sweet Peas, novelties for 1913, descriptive list of modern varieties, obsolete varieties, selections for various purposes, Sweet Pea raisers and their varieties, and a directory of Sweet Pea experts are a few of the principal contents. Copies can be obtained from Mr. Wright, The Grey House, Lyminge S.O., Kent, price 6d.

Villa and Window Gardening in Edinburgh and Leith.—A sign of the forward policy of the Scottish Horticultural Association has been the offer, through the medium of the schedule of the Chrysanthemum show, of prizes for the most artistically-arranged and best-kept villa gardens and the most artistic displays of window gardening in Edinburgh and Leith. The prizes have been adjudged as follows: Large villa gardens: Prize of gold medal, Mr. G. Harrison, Warrender, Murrayfield; silver medal, Mr. James Ewing, Doreen, Murrayfield; bronze medal, Mr. A. Dryburgh, Wester Coates Gardens. Small villa gardens: Silver medal, Miss J. R. Stenhouse, Dial Villa, Ferry Road. Window gardening display: Silver medal, Mr. J. Hay, 57, Merchiston Crescent; bronze medal, Mr. M. Keddie, 191, Duncan Street. There were a good many competitors, and some very pretty gardens and window gardens were entered for the prizes.

"Country Life" for October 26 contains, among other articles, an illustrated account of "Little Ridge, Wiltshire"; "Tales of Country Life: The Reforming Angels," by Constance Smedley; "Trouting with the Clear-water Worm" (illustrated), by G. Garrow-Green; "An Arab Pilgrimage" (illustrated), by Algernon Blackwood; "Dogs I Have Known."

TRADE NOTES.**HORTICULTURAL BUILDINGS.**

READERS who are interested in horticultural buildings, garden frames, boilers and everything pertaining to the building of glass-houses should lose no time in applying for a new catalogue issued by Messrs. William Duncan Tucker and Sons, Limited, 27, Cannon Street, E.C. It is a most handsome production, printed on art paper and profusely illustrated. The illustrations are well chosen, and depict some of the finest greenhouse construction in the country.

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GARDENING APPOINTMENT.

MR. ADAM M'CRONE, for several years gardener to the Misses Seton Wightman, Courance, Lockerbie, Dumfriesshire, has been appointed gardener to J. Weir, Esq. Over Courance, Lockerbie, and has entered on his duties there.

CATALOGUES RECEIVED.

Mrs. A. M. Pym, Vine House, Woodstone, Peterborough: General Nursery Catalogue.
Mr. Philip Le Cornu, Jersey: Fruit Trees and Roses.
Messrs. Edmondson Brothers, Dublin: Bulbs and Flower Roots.
Mr. M. H. Sinclair, Aberdeen: Bulbs.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.



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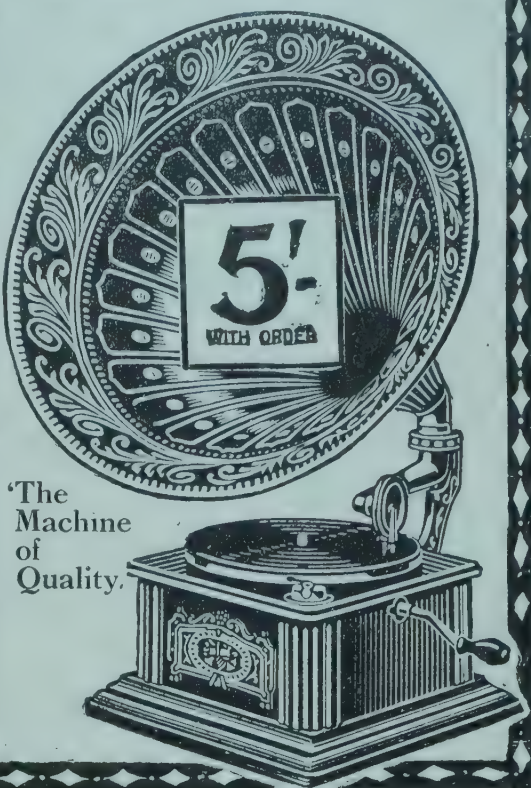


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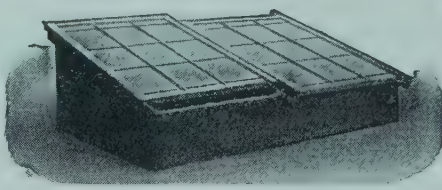
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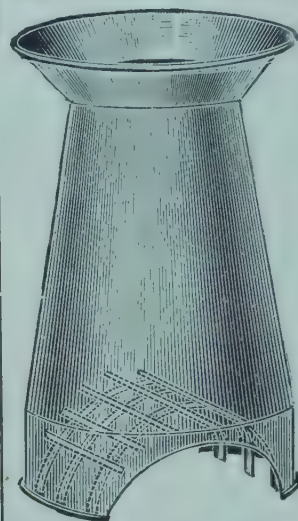


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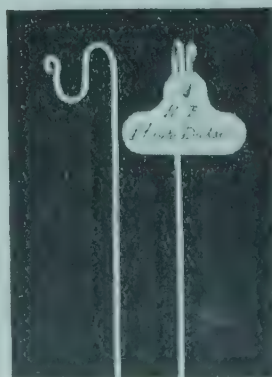
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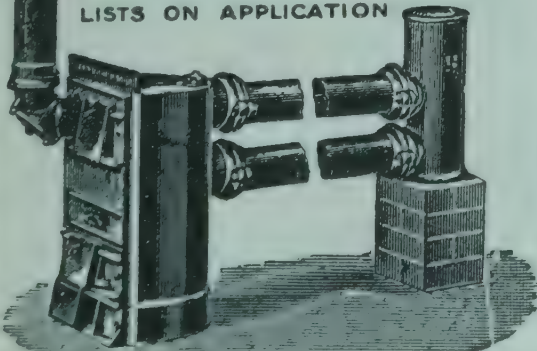
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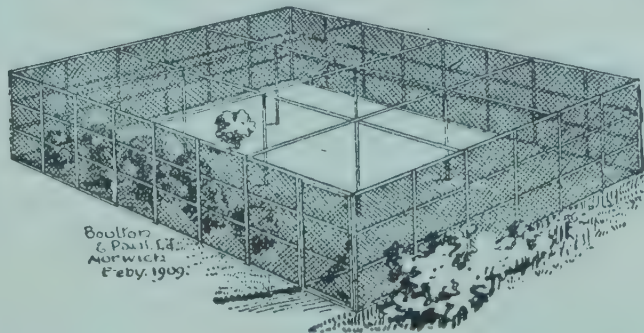
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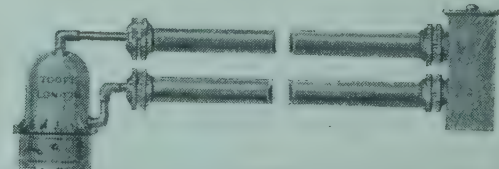
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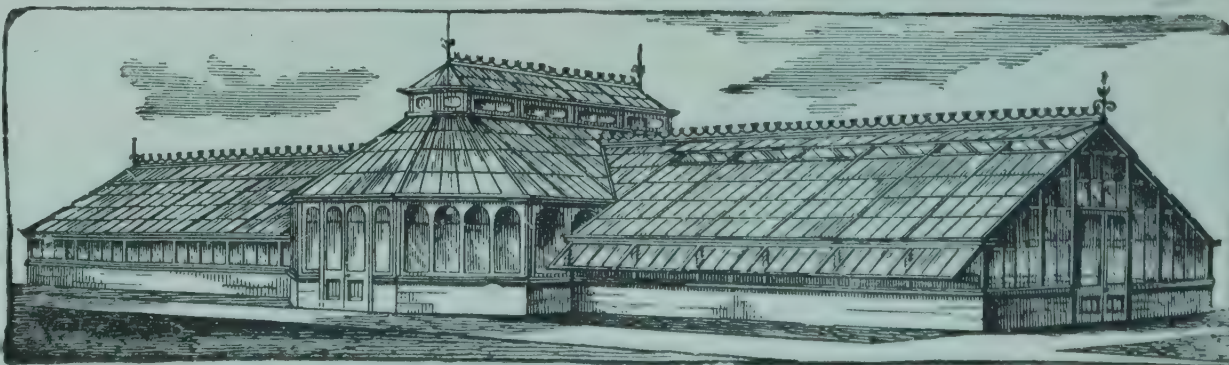
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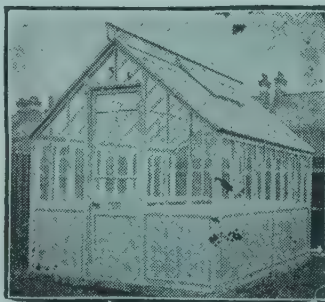
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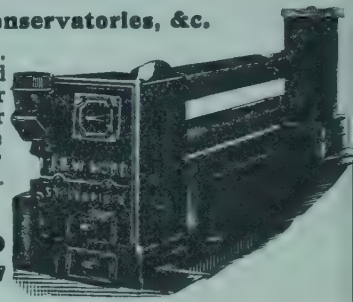
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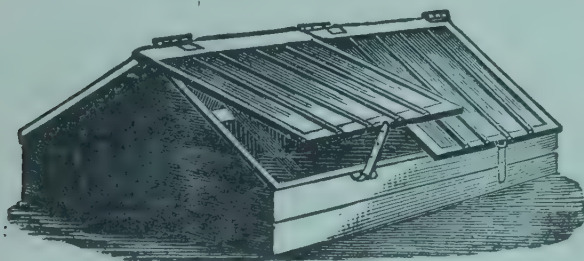
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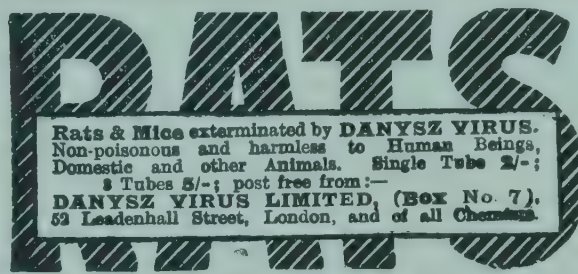
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(Continued on next column).

(Continued from previous column).

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6 Peas, perennial, blue	1/-	1 Honeysuckle, gold leaf	6d
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1 Ivy, silver leaf	4d	1 Euonymus, silver	4d
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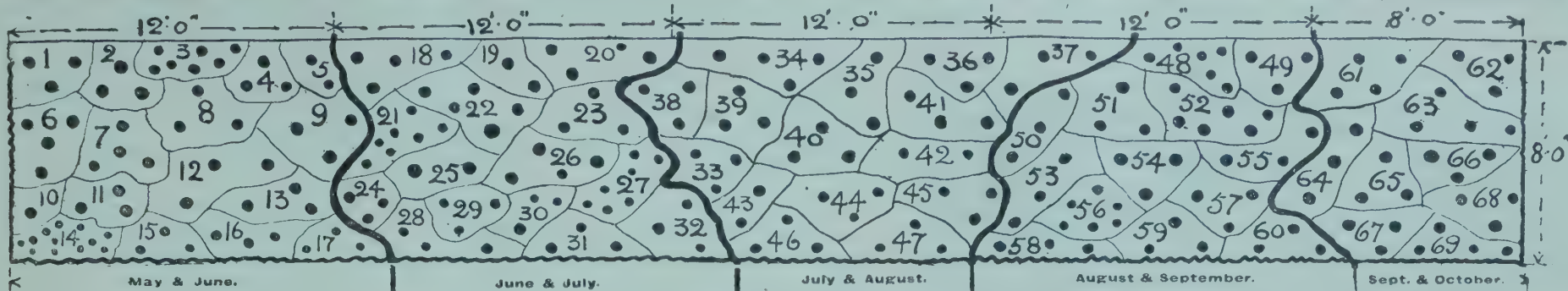
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THE GARDEN.

No. 2137.—VOL. LXXVI.

NOVEMBER 2, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Chrysanthemums in London Parks.—For some years past the London County Council has provided rich displays of Chrysanthemums in a number of the parks that come under its control, and, judging by the crowds of visitors, these are very highly appreciated. Exhibits are now open at the following parks: Battersea, Victoria, Southwark, Finsbury, Brockwell and Waterlow.

Tropical Fruits at Covent Garden.—During the past few weeks considerable interest has been taken in some consignments of fruits of *Monstera deliciosa*. These somewhat resemble Pine cones in shape, and the flavour may best be described as a mixture of Pineapple and Peach. The fruits under notice come from Madeira. The plant is a tropical climber, the large leaves of which are perforated with holes and the margins much lacerated. Specimens can be seen in No. 1 House at Kew, near the main entrance.

An Autumn-flowering Snowdrop.—*Galanthus Olgae* is once more on the market, and was shown at a meeting of the Royal Horticultural Society a short time ago. It is not so reliable as *G. cilicicus*, which is rather later, and has been lost several times by some experienced cultivators of the Snowdrop. It is rather a delicate grower, and has small, slender growth. The flowers are much the same as those of the common *G. nivalis*, but it blooms in October. It was found originally on Mount Taygetus in Greece.

The Rose Garden of Europe.—It is interesting to note that one of the chief industries of Bulgaria is the cultivation of the Rose for the purpose of manufacturing attar of Roses. The vast area of fertile land lying between mountain ranges in the neighbourhood of Kusanlik is devoted entirely to the Queen of Flowers, and is very appropriately known as "The Valley of Roses." It is the Damask Rose (*Rosa damascena*) that is so extensively grown for the distilleries, both pink and white varieties. A prettier sight than Rose-picking in the early hours of a June morning it would be hard to describe, and this within a few hours' journey to the north-west of Adrianople, now the scene of war with all its terrible associations. From its vast plains and valleys of Roses this Balkan kingdom has earned for itself the title of "The Rose Garden of Europe."

The Persimmon, or Date Plum.—It does not appear to be widely known that the interesting shrubs *Diospyros*, which produce fruits known as Persimmons and Date Plums, are really hardy—at all events in Southern gardens of this country. Three species are mentioned in the "Kew Hand List of Hardy Trees and Shrubs," viz., *D. Kaki* of Japan; *D. Lotus*, said to be naturalised in Southern Europe; and *D. virginiana*, the Persimmon of the United States. By way of proving its hardi-

ness, one of these species is now producing a crop of fruits on a wall facing south at Kew. It is curious to note that in their native habitats some species of *Diospyros* yield the valuable wood ebony. The sap-wood is white and soft, and the heart-wood hard and black.

Veronica subsessilis.—In the entire range of the hardy herbaceous *Veronicas* there is no species of such merit as this, none so rich or decided in colouring, and, happily, none more amenable to good cultivation. That is to say so unique a subject is worthy of every care, and if given generous treatment will repay it a hundredfold in August and September. This fine Japanese species is quite unique, not only in the intensity of its rich deep violet flowers, but in a flowering and vigour of growth which separates it from all others. It is a plant to be made much of.

A Good Rock Garden Shrub.—The value of low-growing shrubs in the rock garden is now fully appreciated by those who wish to have such a garden bright over as long a period as possible. Unfortunately, the number of shrubs suitable for the purpose is not large; hence *Cotoneaster humifusa*, a new Chinese species, is likely to prove a most welcome addition. It has a low, trailing habit, is perfectly hardy, and just now freely bedecked with scarlet berries. Planted so that its shoots could hang closely suspended over a large boulder or miniature precipice, it would make a fine effect in the rock garden at this season.

Exhibits from School Gardens.—Although there are thousands of school gardens in the country, it is seldom that exhibits of the produce grown therein by the scholars are seen at our London shows. At the meeting of the Royal Horticultural Society held last week, visitors were able to gain some insight to the crops grown in such gardens by an exhibit from the Purfleet School, Essex. Compared with the high-class fruits usually staged at these meetings, those comprising the exhibit under notice were, naturally, somewhat commonplace; but the exhibit served to show that instruction at the school is carried out on proper lines. More exhibits of this kind would tend to increase public interest in school gardening.

Iris Snow Queen.—This very beautiful *Iris* is gaining ground more slowly than its merits deserve, and intending purchasers of new plants for another year should not omit it from their lists. It is understood to be a hybrid, and to have some of the "blood" of *Iris sibirica* in its veins. It is an easy subject to grow, but evidently likes a fair amount of moisture, and by the side of a pond or stream looks remarkably ornamental. It is neater in its growth than the white varieties of the Siberian *Iris* itself, and has larger flowers of much greater substance, the white being so pure, also, as to well entitle the plant to the name of Snow Queen.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Zauschneria californica.—The note in your issue for October 19, page 525, reminds me that one hears constant grumbles that this plant will only flower in very exceptionally hot seasons, and that it is not generally known that the variety *californica* not only has a much longer flowering period, but produces bloom freely even in such a dull season as this last. It has paler and brighter green foliage than the type, and the flowers are of rather a lighter shade of scarlet. I have grown it here on the rock garden for some fifteen years, and though left in the same position all the time, it has never failed to make a good show each season from July till severe frosts cut it down.—E. A. BOWLES, *Waltham Cross*.

New Zealand Shrubs.—For the information of your correspondent Mona Mackay, page 539, October 26 issue, I may say that the crimson-flowered *Manuka*, *Leptospermum scoparium* *Nicholii*, is a seedling variation from the common *Manuka*, a troublesome weed, not only of New Zealand, but also of many parts of Australia. There is an older red-flowered form known as *Chapmannii*, which was first found in the South Island of New Zealand, but the variety *Nicholii* is much deeper in colour, being, in fact, a rich ruby crimson, while the foliage is much darker tinted than in the common kind. The original plant of the variety *Nicholii* was, half-a-dozen years or so ago, discovered growing on the sandhills a little north of Christchurch, and was taken in hand by Messrs. Nairn and Sons of Christchurch. Since then it has been fairly well distributed, and has been grown in this country for the last three or four years.—H. P.

The Twelve Best Climbing Roses.—I had no desire to administer "a dressing" to "G. B. W.," but as "a dressing" is admittedly (whatever form it may take, pleasant or unpleasant) nourishment of some sort—for Roses—may I express the hope that the dressing, if it was one, may also prove of service to "G. B. W.," non-rosarian though he may prefer to call himself. He will forgive me if I say that in so doing I think he is libellous; at any rate, he is sportsman enough to have within him the makings of a first-class rosarian. And though he may at the moment remain "of the same opinion still," I am sure when he has obtained and grown the Roses I mentioned he will be "convinced against his will," and will then admit—I do not ask or expect him to do so before—that my twelve are better than his. I have written for Marie Bret and hope to flower it next season, and must conclude with a word of thanks to "G. B. W." for his courtesy and the friendly tone of his note in reply to what he terms my somewhat caustic remarks, and with the further confession that, at any rate with reference to the Latin quotation, I must cry "Peccavi."—HERBERT E. MOLYNEUX.

Cyclamen neapolitanum.—I have just been proving how well it pays to give this plant (like hosts of other things) good cultivation. For many years it has been growing here on a rough bank in very poor soil. During the last few seasons we have annually lifted a number of the seedlings and panned or potted them up, mainly for purposes of stock. The compost used has been loam, mortar rubbish, decayed Cocoanut fibre and a

little cow-manure, and in this they have thriven splendidly. I have noticed that they have given good and plenteous flowers in these pots and pans, which, by the way, are always kept outside or in cold frames, and we have just been turning out the contents of pans planted two and three years for purposes of replanting. We find large, healthy corms, each with a mass of strong fibrous roots, and, in addition, a number of stout little seedlings, much more vigorous-looking than those we collect on the aforesaid bank.—F. HERBERT CHAPMAN, *Rye*.

Autumn Bedding Effects.—Many beautiful combinations of colour come under review from time to time in THE GARDEN, from which amateur and professional alike derive much benefit. A combination that has much to commend it on the score of simplicity and effectiveness consists of a groundwork of *Pelargonium Souv. de Chas. Turner*, with pillar-trained plants of *Swainsona alba* at intervals of 3 feet or 4 feet between, and, if the bed is a large one, a broad belt of *Veronica Andersonii variegata* enhances the effect. The *Swainsona* is a bedding plant of sterling merit, and flowers profusely from planting-out-time in May right up to the advent of frost.—THOMAS SMITH, *Coombe Court, Kingston Hill*.

Reinette Apples.—Your correspondent "A. T. C.," page 510, October 12 issue, raises an interesting point re the name Reinette. The use of names such as Reinette, Pippin and Calville has in this country been so carelessly treated that they fail to convey any special significance. In France and Germany, however, greater exactitude has been used, and they are applied with some system. The Reinette class has formed a division of most of the natural systems of classification, due to German experts, and in France the term is confined to a distinct and similar type of fruit. The character of the flesh is the basis of this group, and it may be said that all Apples that go leathery when kept too long or gathered too early are Reinettes. If we take the Blenheim Orange as a type, this particular characteristic will be realised. It is much to be regretted that these words, which should be descriptive of a class, should have been so recklessly applied, as they form a rough basis for grouping together varieties of similar qualities. The etymology of the word has been the subject of many suggestions. Its first recorded appearance is in the "*Seminarium et plantarium fructiferam*" of Charles Estienne, published in 1540. Various derivations have been put forward, including ranette—a diminutive from rana, a frog—on account of its spots, and that of Hogg quoted by your correspondent. The Oxford Dictionary, however, decides in favour of a derivation from reine—reinette, a little queen, as in our own Apple the Queening. I am aware that Hogg would derive this last from coin or quoin, a corner or angle, but I do not know of any philologist having accepted this suggestion, and the Winter Queening, one of the oldest of sorts bearing this name, is not by any means conspicuously angular.—E. A. BUNYARD.

Campanula Zoysii.—A note on this plant, together with a fine illustration which appeared some little time since, inspires me to a few more remarks on this very beautiful species, which this year I have for the first time made intimate acquaintance with in its own home. There is no wonder that *C. Zoysii* should prove so surprisingly (for it looks so frail and miffy) easy and robust under almost any reasonable conditions of culture with us, whether in soil or moraine, for, though

by nature a plant of high calcareous crevices, it is so vigorous a species that it will seed down into river shingles and there grow into enormous masses with a readiness that would certainly not be shown by *C. Raineri* and *C. morettiana*. For, like these two species, the one from the high Bergamasque limestones, and the other from the Dolomitic (I know of no high alpine *Campanula* that is non-calcareous—*C. excisa* and *C. Elatines* are from lower elevations and conditions), *C. Zoysii* belongs to limestone crevices high up in the cliff faces of the Carnic and Karawanken ranges, but locally as abundant as *C. morettiana*. It should presumably be in flower by August, and yet, in both high stations and low, it was still in bud on August 25 of this year, with only a rare blossom open here and there. So what it means to do about seeding this season I cannot think. Nothing could well be more exquisite than its bulging and puckered up little bells of delicate pale blue. There is also an albino of extreme rarity and beauty. When it grows in cliffs, it affects the cracked rock in which *C. Raineri* can be found, rather than the stark and flawless precipices from which it is so terrible a task to extricate *C. morettiana*. But while it is even easier and heartier to grow than *C. Raineri* (being, indeed, by far the easiest of the alpine Rock Harebells), it is true to say that it shares *Raineri*'s fascination for slugs.—REGINALD FARRER.

Lilium giganteum in Wigtownshire.—When on a recent visit to Lochinch Castle, the grandly-environed residence of the Earl of Stair, Viscountess Dalrymple showed me in her famous wild garden, in a shady wood behind the Castle, an imposing specimen of *L. giganteum*, a native of the Central Himalayas, which, while reaching a height of 13 feet, had in the season of full floral beauty no fewer than sixteen enormous funnel-shaped, ivory white flowers. I have heard of this great Lily attaining in two instances—in a garden near New Galloway and at Cavens Gardens in Kirkbean Parish, Kirkcudbrightshire—to an almost equally commanding elevation. I have also learned that at St. Mary's Isle, near Kirkcudbright, the former residence of the Earls of Selkirk, the Himalayan Lily has sometimes assumed commanding dimensions. But, so far as my personal observation is concerned, the Lochinch Lily beats the record, at least in Southern Scotland. Indeed, I have never heard of it anywhere in Great Britain attaining in an equally shady situation to a greater height. I may also, perhaps, be permitted to add that *L. giganteum*, whose culture is not exacting (if the soil is sufficiently fibrous to promote drainage and adequately fertile to inspire vigorous growth), is usually perpetuated by offsets, which it throws out for this special purpose contemporaneously with the decay and gradual extinction of the great flowering bulb, which is undoubtedly exhausted by this supreme effort, rather than by the mere creation of its massive flowers. Sir Herbert Maxwell, Lord-Lieutenant of this county, who is an earnest horticulturist and accomplished botanist, grows it extensively from seed at his beautiful residence of Monreith. It may be imagined how protracted is this evolutionary process when it is remembered that the largest offset obtainable takes at least four years to build up a full-sized flowering bulb. It is sufficient to render our horticultural patience, in the memorable words of Matthew Arnold, "too near neighbour to despair."—DAVID R. WILLIAMSON, *Manse of Kirkmaiden, Wigtownshire, N.B.*

Zephyranthes candida as an Edging.—Some weeks ago I read with interest a note in THE GARDEN about this beautiful little bulbous plant being used as an edging. The enclosed photograph shows it used in this way. The white flowers are very pleasing in autumn, and the green foliage makes a delightful edging. It appears to like soil that is well drained and of a rather sandy character.—E. M. D.

The Newer Hybrid Perpetual Roses.—I agree with my namesake, page 519, that the list he gives of newer varieties is a meagre one. It had better be that than a longer list of inferior sorts. I am sure Rose-lovers will have confidence in the selection he gives, because they know his recommendations are the result of practical experience. There is one sort I would like to add, and which he probably overlooked, viz., Commander Jules Gravereaux, sent out by Croibier in 1909. It may not be an exhibition Rose, perhaps, but that is not demanded of all Roses. The blooms are large, and the exhibitor would probably say they are too "rough." The petals are frilled, reminding one greatly of a Chinese Pæony. In colour it is a desirable velvety red, shaded maroon, and, what is very important, it is distinctly fragrant, which so many new Roses are not. I would like to emphasise all that is said about Gloire de Chedane Guinoisseau, because I consider this one of the most meritorious varieties sent out for many years. I have told scores of nurserymen to prepare a large stock of this variety, as there is certain to be a run on it. One of the dwarf plants I put in last November gave me ten handsome blooms during the months of June and July, as well as more from the second growth made later. Can Mr. Molyneux tell me where Hybrid Perpetual Roses leave off and where Hybrid Teas begin? What is the strict definition of the two, I wonder? —E. MOLYNEUX.

FORTHCOMING EVENTS.

November 5. — Royal Horticultural Society's Meeting and Special Exhibition of Orchids (two days) at Vincent Square, Westminster. Lecture on the first day by Miss Edith Saunders on "Double Flowers." Orchid Conference on the second day. Bournemouth Flower Show (two days). Chelmsford Chrysanthemum Show (two days). Southampton Chrysanthemum and Fruit Show (two days). Scottish Horticultural Association's Meeting. Birmingham Chrysanthemum Show (three days). Hayward's Heath Chrysanthemum Show (two days).

November 6. — Bath Gardeners' Debating Society's Chrysanthemum Show (two days). Dulwich Chrysanthemum Show (two days). Northampton Chrysanthemum Show (two days). Wandsworth Chrysanthemum Show (two days). Wargrave Chrysanthemum Show.

November 7.—Exeter Chrysanthemum Show (two days). Newport Chrysanthemum Show. Linnean Society's Meeting. Chrysanthemum Show at Stoke Newington (two days). Bury and West Suffolk Show (two days).

November 8.—Chrysanthemum Shows at Epsom, Nottingham (two days) and Lowestoft (two days).

November 9.—Burton Chrysanthemum Show.

THE GREENHOUSE.

NOTES ON CHRYSANTHEMUMS.

NOVEMBER WORK.

THE results of the work of twelve months, and in some cases more than that period, will now be seen in thousands of gardens in the country. The large blooms will be in evidence, whether they are intended for exhibition or for the embellishment of the conservatory. Specimen plants, bearing from nine to two dozen blooms each, are very effective and useful in the greenhouse, and for placing



ZEPHYRANTHES CANDIDA, AN AUTUMN-FLOWERING BULBOUS PLANT, USED AS AN EDGING.

in porches and corridors temporarily. Inexperienced cultivators are sometimes over-anxious about the production of large blooms, and often give the plants too many stimulants and in doses that are too strong. They rely a great deal on nitrate of soda and sulphate of ammonia, which kill many roots and check the growth of the bloom petals. Furthermore, they cripple the growth of suckers, and thus spoil the chance of procuring healthy cuttings for another year. After the blooms have three parts developed, the plants need only clear water of the same temperature as the house. Sufficient only is required to prevent the leaves flagging. So treated,

plants in greenhouse and conservatory groups will last a long time in a fresh state and retain their lower leaves. The blooms will not damp off unduly if a little shading is applied when the sun shines brightly.

Shading and Ventilation.—White, yellow, primrose and blush coloured flowers do not fade or damp off as soon as the bronzes, chestnuts, crimsons and buffs. Some light material should be placed over those that fade the soonest and last in a fresh condition only a short time. If grown in low houses, more shading is necessary when the sun shines brightly than when the plants are grouped in high structures. The ventilation of the house is a matter of great importance, as the plants must have plenty of air without being subjected to cold draughts. More air should be admitted through the top ventilators than the side ones. The latter must be kept closed except on very fine days. The top ventilators must be kept open night and day except in foggy weather, and every night the pipes should be warmed to ensure a free circulation of air.

Grouping for Effect.—When commencing to arrange a group of plants, the owner must always place the tallest plants at the back and finish with the dwarf ones in the front; but the appearance of the blooms must not be too formal. An undulating surface will look best and be the most interesting. Avoid overcrowding.

Plants to Flower at Christmas.—These are of great value because they provide the cultivator with blooms for cutting and other purposes at a season when flowers are scarce, few being obtainable except from plants that are forced. Chrysanthemums need no forcing. When the right varieties are grown, they will bloom at the required time if kept safe from frost and in a fairly dry atmosphere. In order to strengthen the flower-stems, keep the buds near the glass and only apply stimulants every third watering until the colour of the florets can be seen; then feed oftener for a time. A top-dressing of rotted manure and fibrous loam, mixed, will greatly benefit the plants.

Plants Lifted from Borders.—Before lifting the plants, the soil should be made quite firm all round them by treading. Then, with a clean, sharp spade, thrust well down, sever the roots on every side and about four inches away from the main stem. This will enable one to lift the plants with a good ball of soil and roots, for which a large pot, tub or other

receptacle must be used. Make the new soil quite firm around the roots and give a thorough watering. The check given to such plants results in the loss of some of the bottom leaves, but the buds are not materially affected. At first daily syringings on fine days will do more good than the constant watering of the soil. If the foliage is maintained in a fresh condition, new roots will soon permeate the soil used; and, if ample ventilation be afforded, the buds will be sturdy and the flowers very satisfactory and useful, remaining in good condition for some time after frost has destroyed those left outside.

AVON.

THE FLOWER GARDEN.

LATE-FLOWERING TULIPS.

AS we all know, Mrs. Jarley of Living Wax-works fame, whenever she came to such a figure as that of the Emperor of China, always gave us a bit of geography. "China," she used to say, "is divided into two parts; China proper and China improper. Of the first I know nothing whatever about, and the second we will not pause to discuss." So with these Tulips. They also are divided into two parts, but both are real, proper flowers; at least, we all say so when we have taken out our "florists' eyes" and put in those of ordinary mortals. There has been quite a little mania-time in Holland this year ever since the days of the "green sales" (that is, the plants as they are growing). I am glad, for it means that lovers of gardens all over Europe and America are beginning to appreciate Tulips at their proper value, and to realise what useful flowers they are to brighten up their beds and borders in early May.

The next ten days after these lines appear in print is the best time for planting; but Tulips, I find, are very accommodating in this respect, and I have had excellent results from bulbs which were not put in until mid-December. Perhaps, if it is not too much like carrying coals to Newcastle, I may remind my readers of the uses to which these late Tulips may be put other than those of filling beds or forming larger or smaller groups in borders.

First—and this is especially true of the Cottage section, with which, however, I must for this purpose couple one or two "species"—they are excellent for cutting. For this purpose they should be planted in beds in the kitchen garden, or else where the blooms are not wanted for outside decoration.



A VASE OF COTTAGE TULIPS. BULBS MAY BE PLANTED NOW.

Secondly—and this is only true of the Darwins and the Darwin-shaped yellow Cottage, such as Clio or Jaune d'Œuf—they lend themselves very well indeed for growing in pots to bloom, say, between March 15 and March 30. An ideal place in which to put these when in flower is on the floor of a winter garden or a smoking-room conservatory. Appended are three lists.

For Cutting.—These are for the most part varieties with long, slender stems and rather pointed flowers. In a word, they are graceful rather than handsome. Didieri, small pointed flower, bright red; Didieri alba, a pure white form of the preceding; elegans alba, pure white, of much substance, with a very fine "wire" edge of carmine, which never flushes the ground colour as in Picotee; Ellen Willmott, lovely soft citron yellow pointed petals; La Merveille, tall-growing, superb variety, a sort of orange carmine; Marjoletti, creamy white, with a rosy pink mark at the base of each petal; Mrs. J. Robertson, a yellow of a deeper shade than Mrs. Moon, and of much the same long shape; Mrs. W. O. Wolseley, a rich dark crimson; Pride of Inglescombe, a later, deeper-coloured and larger Picotee; Picotee, pointed flower, white, edged rose—as it ages the colour gradually extends almost all over the petals; retro-flexa, an ideal Tulip for cutting, soft canary yellow self, vase-shaped; The President, an exquisite shade of buff orange—very few flowers of this shade; and Walter T. Ware, by far the deepest shade of yellow of any Tulip. It has pointed petals. The illustration of Cottage Tulips admirably illustrates the adaptability of this section for vase decoration. I do not ever remember to have seen a better one. The flowers were arranged by Mr. F. Lilley of Guernsey.

For Pots.—Most Darwins may be grown successfully in pots. I give in this list another baker's dozen of some of the best of them and the yellowy Darwin-shaped Cottage varieties, which are also well adapted for this purpose. A single word must suffice for their colour description, as what is true of a cake is true of a column in THE GARDEN—you cannot eat it up and have it. Anthony Roozen, rose, edged blush; Bleu Amiable, a purple mauve; City of Haarlem, dull red; Clio, biscuit colour; Gudin, mauve; Inglescombe Yellow, canary yellow; Jaune d'Œuf, yellow brown; King Harold, deep carmine; Morales,



LILIUM BROWNII, A BEAUTIFUL SPECIES FOR THE OUTDOOR GARDEN OR GREENHOUSE.

plum purple; Painted Lady, almost white; Professor Rauwenhoff, rosy red; Suzon, pale pink; and William Pitt, blood red.

For Garden Decoration.—This list is not my own, but it is all the better for that. I asked my head-gardener to make a list of the thirty-six varieties that he considered were the most popular among our visitors this last spring. As I am away a good deal, he takes more round than I do, and I rather fancy he hears in plainer words than I do what they really think; hence its value. I am writing in the very early morning, and I have no idea what his list contains. I feel quite anxious for after-breakfast to come so that I can go out and get it. As he gives it to me, so will my readers have it, with no alteration and without any comment but this—that those varieties of which I have only a very few, such as Gertrude, Crepuscule and Royal Visit, are almost necessarily unnoticed by visitors who have only an hour or two to spend among the 500 or 600 kinds that I grow. In the list, again, the description will be an approach to the vanishing point. For convenience of reference I have roughly grouped them in colours.

Red and rose shades: Cassandra, rose; Emerald Gem, orange cherry; Isis, bright red; King Harold, dark crimson; Mrs. W. O. Wolseley, pointed crimson; Orange King, orange red; Pompadour, dwarf blood red; Prince of the Netherlands, deep rose; and Tara, deep ruby red. Yellows: Ellen Willmott, pointed pale lemon; Moonlight, long pale yellow; Solfatare, early, pointed pale lemon; and Walter T. Ware, deep golden yellow. Dark shades: Giant, dark reddish purple; Kingscourt, ruby violet; Velvet King, dark purple; and Zulu, darkest plum purple. Purple: The Bishop, real purple.

Mauve: Melicette, lilac; and Salomon, pale rosy mauve. Brown shades: Clio, biscuit brown; Garibaldi, early, yellowy brown; Goldmine, orange and brown striped; Gondvink, tortoiseshell brown; Hammer Hales, pale copper, flushed orange red; Old Times, brown, edged buff; Quaintness, coppery orange; and Toison d'Or, deep orange and brown. Picotee: Carnation, white, edged rose. Pink shades: Clara Butt, pink, flushed salmon; The Fawn, palest fawn; and Suzon, warm flesh pink. Art shades: Le Rêve, pinky lavender; Beauty of Bath, pale lemon and palest mauve; and John Ruskin, rosy apricot. Slaty coloured: Norham Beauty.

A few remarks on the foregoing list may be of interest. Of all the 500 varieties which I grow, perhaps the most popular of all was Moonlight, and yet the Royal Horticultural Society's Tulip committee refused it an award. I can only say they cannot really know many of the flowers which they are called upon to judge if they would pass this by.

My gardener found what I did. Quite four out of five visitors went for the "brownies." Clio and Gondvink were in big masses, and there was a good deal of Toison d'Or, but Quaintness in the list rather surprised me. Garibaldi was an outstanding tall early, and deserves wide recognition. Goldmine I like exceedingly, and I am glad to find others appreciate it. I have a large bed for next spring, for I have put all my little bits of it together and bought some more. No "broken" Tulip appeals to me quite like Goldmine. There is such a rich, good look about it, like a good bit of material.

Salomon is the most lovely of all rosy mauves or heliotropes. It is a Dutch breeder, very scarce, for I never meet with it, and not a very quick increaser. It has taken me a long time to work up enough stock to fill one of my 13-yards-long beds, but I have done it at last.

The superb Louis XIV. was next to Kingscourt. I do not at all agree with my visitors' choice, and I know one good friend, a Victoria Medallist of Honour with a double-barrelled name, who will not either. I have just written a book on Tulips, and he wrote to implore me whatever I did not to leave out Louis XIV. As if I could! I have just looked up what I said, "a Tulip of exceptional magnificence." Kingscourt is, however, a very good flower.

Although I love the very dark shades, I know many do not, and I hardly expected to find Giant, Zulu and Velvet Gem put down. I suppose Giant impressed people by its height and size. We measured nearly every Tulip this year, and this and Viola were the only ones that touched 3 feet. The shade of Emerald Gem is unusual. I have come to like it very much. Most people "put it down." Now Baylor Hartland has gone it will have a sentimental interest added. He found it out and gave it to us, as he did a number of other good Tulips and Daffodils, and I wish that he still lived to give us more.

JOSEPH JACOB.

LILIUM BROWNII.

This beautiful Lily is worthy of more general cultivation, both for greenhouse decoration and outdoors, as, generally speaking, it is not a difficult Lily to cultivate. Naturally, it is best suited in a good medium loam, but, as in the case of the bulk of Liliums, it pays to prepare a special compost for them. This should consist of a rich light loam, with the addition of a little peat, plenty of leaf-soil and sharp silver sand. The proportions of the above will, of course, vary according to the class of loam one has to deal with.

In common with most Liliums, the best position outdoors for this handsome species is in a bed of dwarf-growing shrubs. Here the young growths are sheltered from cold, cutting winds during the spring. Another important point which is often overlooked is the fact that the roots of the shrubs help to keep the soil sweet and in good mechanical condition.

gives this Lily a very striking appearance. This brown colouring is, of course, much deeper outdoors than on plants cultivated under glass. There are several fine varieties of this Lily, such as Colchesteri, Chloraster and leucanthum, but at present they all seem scarce in cultivation. J. C.

JAPANESE ANEMONES IN THE WOODLAND.

For making an effective display in the open parts of the woodland during the early autumn months, few plants are better than the Japanese Windflower, *Anemone japonica*. Delighting as it does in a moderately rich, deeply-dug soil, where its long, thick roots can feed freely, it is essential that these conditions be afforded it. Grouped in front of coniferous or other dark-foliaged trees, as shown in the accompanying illustration, the beauty of the flowers is revealed to the fullest extent, and this is a point that should be fully borne in mind



AN EFFECTIVE GROUPING OF JAPANESE ANEMONES. NOTE THE DARK BACKGROUND OF TREES. NOW IS THE TIME TO PLANT.

The cultivation of this Lily in pots for greenhouse decoration presents no more difficulty than that of the more commonly grown *L. longiflorum*. As soon as received the bulbs should be potted up, putting three or four, according to size, into a 6-inch pot, or they may be potted singly into 4½-inch pots, using a light loam with the addition of a little peat, leaf-soil and sand. A little charcoal added will help to keep the whole sweet. After potting they should be stood in a cold frame until they have made plenty of roots, when they may be introduced to a warm greenhouse. They should not at any time be subjected to high temperatures, as they are best when allowed to come on gradually.

This *Lilium* generally grows from 2 feet to 4 feet high, and as a rule bears two or three flowers on a stem, which, when well grown, are as much as 9 inches in length. The inside of the flower is white, the outside a rich brownish purple, which

when planting this exquisite Windflower. Although it can be planted in early spring, many good growers prefer to plant it now, so that the roots get to some extent established before severe frosts are experienced. There are a number of varieties, but for woodland planting the type is admirably adapted.

SEASONABLE NOTES ON CARNATIONS.

Protecting from Sparrows.—The Carnation is beyond dispute one of the most useful of all the plants which can be persuaded to thrive satisfactorily in the restricted patches which are popularly dignified with the name of town gardens. The plants do not resent the lack of fresh air to any appreciable degree, and the fact that the soil is often extremely poor troubles them not at all. One would not dare to affirm that the blooms are quite as handsome in form, large in size, or

pure in colour as those produced by plants in country places; but they are really excellent and bring an infinite amount of pleasure to their owners. The plants are so accommodating that there is only one very real trouble, and even that does not occur in all gardens or in all districts. I refer to the partiality of sparrows for the leafage. In many gardens nothing short of a complete network of strong thread, repaired as necessary to maintain it in perfect condition, will keep a single sound leaf on a plant; while in other gardens, where the perky visitors appear to be equally as numerous, not a single plant will be touched. I do not pretend to know why this is so, but I strongly urge growers, on the first signs of attack, to net over and round each plant so efficiently that it is impossible for

that must be allocated to the task. It is essential that the cutting shall be extremely shallow, and, needless to say, roots must not be in any way disturbed or the growths injured.

Plants in pots in frames demand rational treatment. Carnations are hardy plants, except with some few tender varieties and in places where the soil and surroundings are peculiarly unfavourable. The trouble is, however, to persuade many amateurs to treat them as such. Because they are to be wintered in frames, they at once commence to keep the light close, neglect to admit fresh air, and the plants become weak owing to the unnatural manner in which they are being treated. Have nothing to do with any system like that. Never close the lights entirely, and whenever the external

Earl of Gosford (S. McGredy and Son, 1912).—To a certain extent the foregoing remarks apply equally to this Rose. Its colour alone will commend itself to exhibitors. It is a good dark crimson, very fragrant and an excellent grower; but the flowers are not more than medium size. It has done very well with me, and I have not seen a bad flower of it all the season.

Edward Mawley (S. McGredy and Son, 1912).—Be the reason what it may, this Rose has not been so fine with me as I should have liked, and I have not had such good flowers as one would reasonably expect from a Rose of its reputation. Whether the weather was too hot for it in the early season, or whether I failed to give the Rose the treatment it wished for, I cannot say, but I could not get the desired point or the size that I had the previous year. As seen at Portadown, all this was altered, and there was no difficulty in cutting and finding many fine flowers; but apparently it must be cut young and not allowed to develop too far. Its wonderful colour makes it an essential Rose to the exhibitor, but it requires the best of culture.

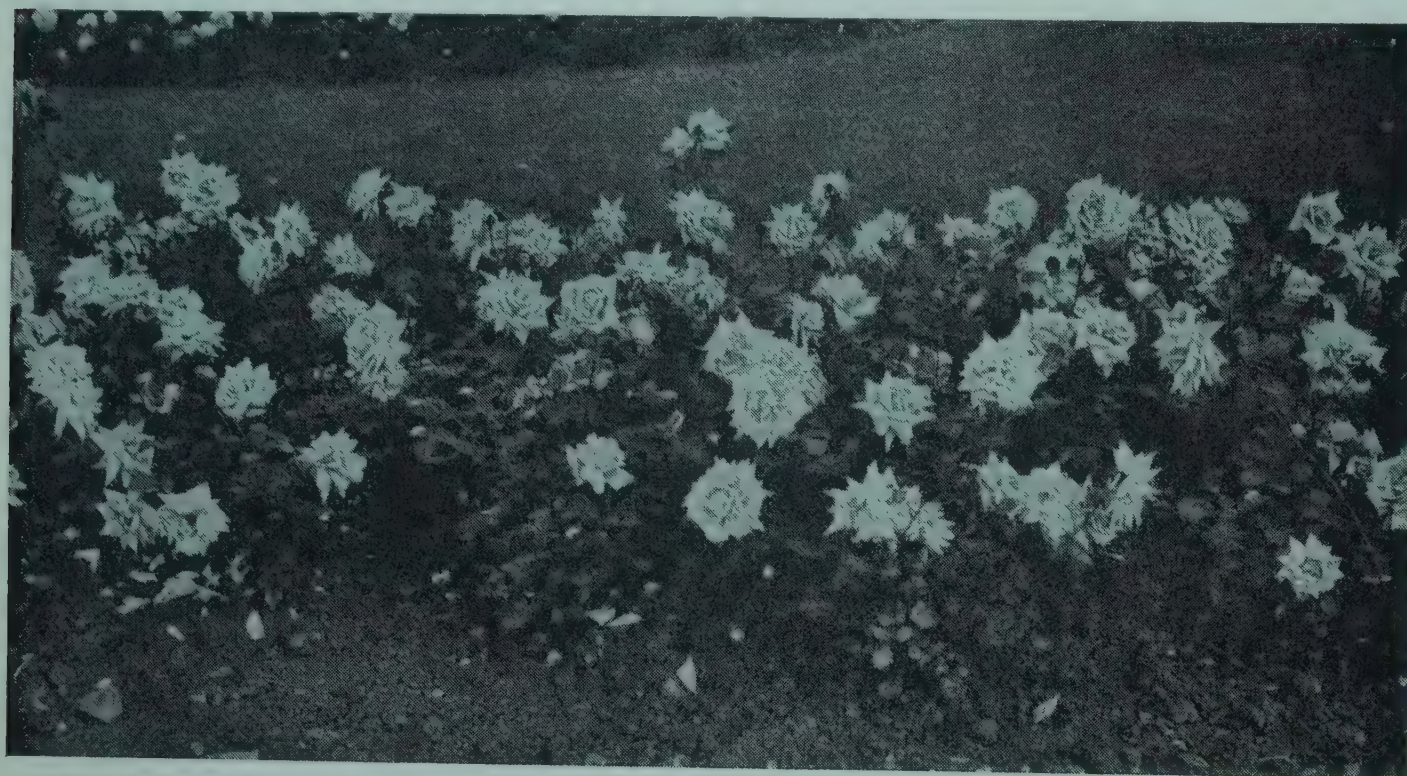
Elizabeth (B. R. Cant and Sons, 1911).—A pink Druschki is quite a fair description of this Rose. It is so free-flowering that it must be heavily disbudded to one bud. It has been very good with me—quite up to exhibition standard, and is catalogued at 1s. 6d. this year by the raisers, so should be tried if not already grown.

Evelyn Dauntsey (S. McGredy and Son, 1911).—This is another good Rose from Portadown of the old Grand Duc de Luxembourg style of colour and strain, with the advantage that it is much finer in shape and holds up its flowers erect, which the old variety failed to do. Its

colour is salmon, with the contrast of a deep carmine rose. It is very free-flowering and is naturally a garden Rose, but, disbudded, its fine shape will entitle it to a place among exhibition Roses.

Ethel Malcolm (S. McGredy and Son, 1910).—The more I see of this Rose the better I like it. It is flesh colour, with a blush centre, a description, perhaps, that hardly does it credit; but I consider it the best Rose of its colour. Fine foliage and a good grower, without being too vigorous; scented, so that it is difficult to find fault with it. Very early and very freely exhibited at the early shows. It is a Rose that always comes a good shape, with a beautiful guard petal and fine point, and generally of that useful kind which is so much wanted. It is bound to take a high place in Mr. Mawley's Analysis.

Ferniehurst (Alex. Dickson and Sons, 1911).—Not an easy Rose to describe as far as its colour goes—coppery pink on fawn the raisers call it. There is a suggestion of those sunset colours—the colours that have no name—about the flower that render it very charming. It is globular and imbricated in shape, with plenty of petals, and its growth leaves nothing to be desired. I had a glorious flower of it that I remember took Mr. Mawley's fancy very much. It has been consistently good with me, but as it requires time to perfect its flowers, they must be protected from rain.



A BED OF ROSE LADY ASHTOWN, A BEAUTIFUL PINK VARIETY FOR MASSING. (See page 555.)

the birds to reach it, as this is the only means of ensuring success.

Winter Treatment.—It cannot be urged against border Carnations, whether they are wintered in beds or borders, or in small pots in cold frames, that they make serious demands upon the time and skill of the cultivator; but there are necessarily certain things which will demand attention, and their neglect will have to be paid for in the form of inferior flowers the next season. In the case of outdoor plants—and this system of wintering is to be preferred where the soil is on the light side and the garden does not lie in a valley—it is imperative that their position in the ground shall be keenly watched, as frost is decidedly apt to lift them up, and to leave them thus is to court the disaster which will inevitably follow. Immediately such a state of affairs is seen to prevail, press the plant back into its correct place and make the soil as firm as, or rather firmer than, it was before. The trouble may, of course, recur, and therefore the look-out must be incessant. In no circumstances must weeds be permitted to grow in the beds or borders, and hoeing is the easiest method of keeping them in proper subjection. It is improbable that they will grow to any material degree, but hoeing will keep the surface open and thus encourage the unrestricted admission of fresh air, and should therefore be done regularly when the condition of the soil will admit of it, as the reward for the latter advantage alone is ample for the time

conditions will permit of it, admit all possible air. Torrential rains and snows must be excluded, and frost must not be permitted to freeze the soil to the point of breaking the pots; but except for these things, which have to be guarded against, Carnations must be kept as strong and hardy as possible through the winter to prevent worry and often great disappointment in the following spring and summer.

F. R.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.

HYBRID TEAS.

(Continued from page 540.)

Duchess of Westminster (Alex. Dickson and Sons, 1911).—This is one of those Roses that perform very much better than they promise. Judging from the buds, one hardly expects they will produce a perfect flower; but they do, and the resultant feeling of satisfaction is possibly all the greater. The colour is distinct clear rose madder pink. The blooms are of fair size, of good shape, unlike any other Rose in the shape of its petal, but none the less pleasing on that account. It is also sweetly scented, a good grower, and has good lasting powers when cut. Its only fault is that the flowers are not of the largest size compared with other Hybrid Teas, but some of us prefer beauty to weight.

George Dickson (Alex. Dickson and Sons, 1912).—"The Rose of the year" as far as exhibition Roses are concerned. No Rose has obtained so many silver medals as the best Hybrid Tea at so early a stage in its existence as George Dickson has to its credit. It was awarded the gold medal at the Ulverston Show in 1911. I remember at the "National" in July, 1912, my opinion was asked as to the respective merits of two Roses for the medal for the best Hybrid Tea in the show, and they were both George Dickson! I do not think it is any exaggeration to say that during the show season it secured a silver medal every week. It won a silver-gilt medal at Saltaire as the best Rose in the show, and followed it up by taking the Hybrid Tea medal at Belfast. Messrs. Alex. Dickson and Sons have sent out the finest exhibition Roses that we have, and they have no hesitation in describing it as the best exhibition Rose they have ever raised. I saw it growing at Newtownards, and the flowers were simply perfect. It is undoubtedly the best dark Hybrid Tea. The battle of the reds has waged long and furious. General Jacqueminot (1853), Charles Lefebvre (1861), Horace Vernet (1866), Duke of Edinburgh (1868), A. K. Williams (1877), Victor Hugo (1884), Ben Cant (1902), Hugh Dickson (1904), J. B. Clark (1905), Edward Mawley (1911), Leslie Holland (1911) and George Dickson (1912) each in its turn has been the "King of Roses"; but I think they and their respective champions (for each of the above Roses some exhibitor could be found who would be prepared to give his favourite variety his vote—I am backing George Dickson) will have to admit that a new king has arisen, and their favourite is deposed from the throne he has occupied. I am glad that at last a Rose has been found worthy to bear the name of "George Dickson."

Southampton. H. E. MOLYNEUX
(To be continued.)

ROSE MME. JULES BOUCHE.

EXHIBITORS will find this to be a splendid acquisition. It has the grand high-centred form of Pharisæer, and even higher than that fine variety, but is also a much fuller Rose, and of a delicate ivory white colouring. It reminds one much of the old Souvenir d'Elise Vardon in its refined bloom. Although classed as a Hybrid Tea, there is much of the Tea nature in its growth; but it is quite erect in habit, so that it may also prove a most useful addition to garden Roses. Its fragrance is also very lovely.

DANECROFT.

ROSE LADY ASHTOWN.

IN Lady Ashtown we have one of the best of Hybrid Teas for bedding purposes. It is good in all weathers, and as it opens well either in a cold wet summer or in a hot, dry one, it is obviously well adapted to the British climate. Moreover, its flowering season is extended over a long period, and even at the time of writing (October 24) it is making a brave show with its bright pink blooms in a Surrey garden. Unfortunately it is rather addicted to mildew, but it is such a good Rose in every other respect that we may well overlook this failing.

ROCK AND WATER GARDEN.

ROCK GARDENS IN THE MAKING.

(Continued from page 541.)

The Inexpensive Rockery.—The idea that a rock garden must of necessity be of a costly or elaborate nature may at once be dismissed as erroneous, since it is within the reach of all. It may, indeed, be either of a few yards in extent or a few acres, according to circumstances. It may be of towering character or only a foot or 2 feet raised above the ordinary level, or like that at Kew, which in part is below the ordinary level of the surrounding soil. Or it may be nothing more than a raised rockery border, that modified phase of the subject satisfying to many, and out of which much pleasure is often forthcoming. Be it large or small, dignified or unpretentious, one great principle must be kept in view from the start, viz., that to a number of alpine plants perfect drainage is of the highest importance. Hence in the case of the unpretentious structure or the rockery border a slight excavation of the ordinary soil might prove desirable, so that clinker, rubble, stone or the like may take its place, and thus ensure the more complete drainage one has in mind. To what extent this will be necessary will depend very much upon the nature of the subsoil, soils of a clay-like tenacity requiring to be moved to a few inches deep, while those of a light, sandy nature

hence the presence to-day of the rockery in small as well as in large gardens. Naturally, therefore, the selection of a suitable site in the case of the former borders on the grotesque, and suburban dwellers have to make the best of the circumstances over which they preside. Even to these a few hints, mostly of a negative kind, may not be out of place. For example, in not a few small gardens the ubiquitous Privet is almost sure to be found, and if its owner has not the heart—or shall I say the presence of mind?—to make a bonfire of it on Guy Fawkes Night, let him at least give it a wide berth in the matter under consideration. Then, again, corners should be avoided and the near presence of buildings or walls, unless the erection can be carried sufficiently high to obliterate to some extent such things, which is neither impossible nor impracticable.

In the larger garden this phase of the subject should receive more thought, and a rock garden in view in near proximity to the house where regularity of outline or formality prevail would be quite out of place. The immediate vicinity of trees is ever to be avoided, as much by reason of their root-spread as by the dangers arising from excessive drought, either from the presence of root-fibres or their overtopping branches. The continuous drip from trees, too, is highly dangerous—often fatal—to alpine vegetation, and the fact cannot be too loudly proclaimed. In this connection the operator would do well to keep in



A VIEW IN THE ROCK AND WATER GARDEN AT DRYNHAM, OATLANDS CHASE. (See page 56.)

may, in conjunction with brick rubble or old mortar, constitute a perfect rooting medium for the plants.

Suitable and Unsuitable Sites.—In the last issue some of the objects for the existence of a rock garden were considered in conjunction with that modified type which I designated "the unpretentious" to show that a rock garden need not of necessity be constructed on any elaborate plan. Coming nearer to the point at issue, one feels the need for keeping abreast of the times and for catering for that ever-increasing class who delight in cultivating the flowers of alpine regions;

mind the famous Friar Park example, for of the many object-lessons of which it is the demonstrator, this keeping of tree-life at a safe distance is assuredly one of the greatest. It will be noticed that the entire erection is open and exposed, admitting the fullest sunlight and air, in agreement with that greatest of all teachers—Nature—which it has endeavoured thus modestly to copy and imitate. It is this same principle, however, that I would like to impress upon all readers, since there is nothing of greater import at the outset.

For the rest, our rock garden may go almost anywhere we please, and seeing that so few gardens possess the natural advantages of rocky or undulating banks or surfaces, the majority are the result of adaptation to circumstances. In the matter of a site, that having a nearly or quite flat surface is among the most unsuitable, seeing that its natural advantages are nil, and that everything depends upon the skill, foresight and intelligence of the builder. Still, an interesting rock garden is not an impossible thing even amid such surroundings, as witness that at Kew, first carved out of a portion of an existing lawn. In this instance the rock garden in large degree exists in a depression of the ground, in which, however, much naturalness has been created from time to time. Then in the splendid example just completed at the Royal Horticultural Society's garden at Wisley we have the evidence the advantages a Nature-designed position affords, and which, in conjunction with a bold and successful treatment, will render it presently among the best of those available near London. These, then, are

Bays and prominences should likewise play their part, providing a greater variety of aspect on a minimum area of ground, the bolder rocks forming them meanwhile constituting sheltering glades at their bases, while affording a congenial home at their summit for trailing plants or the greatest of sun-loving subjects. E. H. JENKINS.

(To be continued.)

AN INTERESTING ROCK GARDEN.

THERE is a special feature of interest associated with the rock garden shown in the illustration on page 555, since it was originally constructed at the Royal International Horticultural Exhibition held at Chelsea in the spring of this year. It was there exhibited by Mr. Wood of Boston Spa, and the rock garden, as then shown, formed the subject of an illustration in our issue for June 8 (page 293). This well-arranged and compact rock garden was purchased by Mr. Arnold Weiss, who is evidently a good judge of a suitable home for alpine plants. This same rock garden now stands in the owner's garden at Drynham, Oatlands Chase, near

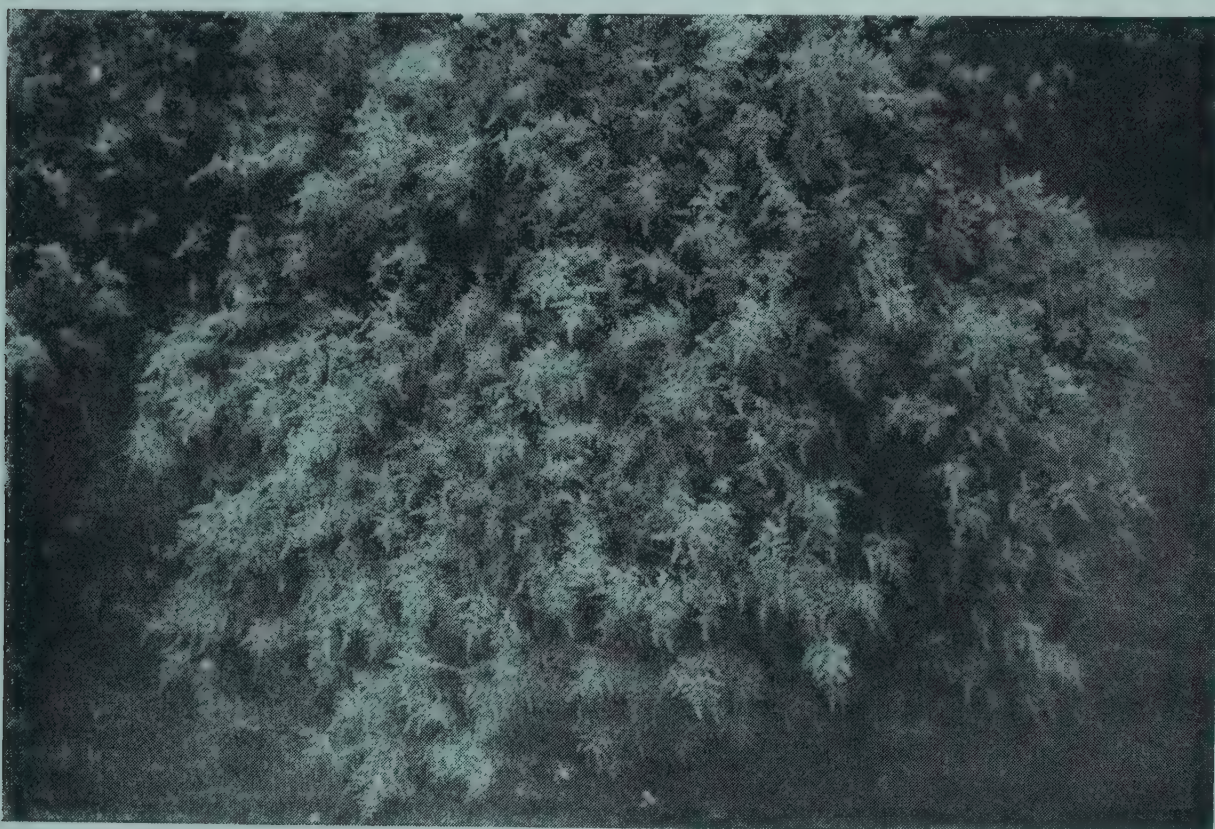
in Devonshire there is no need to grow the plant indoors, for it flourishes so well in the open as to constitute it a common garden plant, either in bush or tree form, or for covering the front of many a cottage from the ground to the eaves of the thatched roofs, and more often than not with a thick woody stem, indicating that the plant is of some considerable age, the wood being very close-grained and extremely hard, but on account of its small size is used only for turnery purposes.

In any form the Myrtle is an object of beauty, the silvery white star-like flowers being set in a background of glossy green leaves; but it is a plant that would seem scarcely appropriate for a close-growing dwarf hedge, suitable to be clipped by the use of shears. Yet in a front villa garden at Exmouth a few days back I saw the plant so treated, and though the hedge was quite trim and neat, having apparently been recently cut, the flowers were peeping out all over it, giving to the whole a very attractive appearance, besides which the scent from the flowers must at times be very pronounced. It may be worth noting here that the flowers had at one time a commercial value for the production of an otto produced by distillation and used as a perfume.

The Myrtle may well be classed as an economic plant, for every part of it has at some time been put to some useful purpose. Thus, in India, where the plant forms a shrub indigenous in the area from the Mediterranean region to Afghanistan and Baluchistan, the bark and leaves are used for tanning, while an oil is obtained from the berries which is said to promote or strengthen the growth of the hair. Besides all these uses, the several parts of the plant are credited with medicinal properties; as, for instance, the leaves are used in India in epileptic cases, as well as in dyspepsia and diseases of the stomach and liver. Carminative properties are attributed to the fruits, which are administered in cases of diarrhoea and dysentery.

Though the common name, Myrtle, is well known in this part of the world as referring to *Myrtus communis*, in Australia it is applied to a large number of trees and shrubs belonging not only to the Natural Order Myrtaceæ, but to various other Orders. The most important, however, is that of *Fagus Cunninghamii*, a very large tree allied to our common Beech, but producing a beautifully-figured, dark reddish wood, much valued for furniture.

J. R. J.



SPIRÆA DISCOLOR, A BEAUTIFUL SHRUBBY SPECIES THAT MAY BE PLANTED NOW.

varying types of the work, and are worth seeing and consulting by those having the construction of a rock garden in mind.

The Question of Form or Outline.—The first essential here is naturalness, and Nature, with all the object-lessons she reveals, must be kept in mind throughout. For example, on a mountain slope or hill there is no such thing as a straight line, and formality is non-existent. Nature has been its sculptor and fashioner for centuries; hence naturally, also, our imitation of such work will be as crude as it is feeble and incomplete. But even so we can at least mark and inwardly digest the principles which such work embodies, and in our imitations get as near the original as possible. In Nature, of course, we see more than one type; but it is the graceful outlines of our own hillsides, with their now rugged prominences or outcropping rocks, that possess the greater teaching value for the rock garden builder. Ruggedness and naturalness we may—must—have, and boldness, too, where circumstances permit.

Weybridge, where it is well situated on the banks of a beautiful water garden.

TREES AND SHRUBS.

THE MYRTLE.

IT would seem to most people that there is little or nothing to be said about such a well-known plant as the Myrtle (*Myrtus communis*) more than has already been said. This is probably true, but well-known and interesting facts in connection with plants, as well as with other matters, are apt to be forgotten in the whirligig of time, especially when the object around which the interest centres is absent from thought or sight for some time.

Years ago the Myrtle used to be very much cherished in other counties than the West as a pot plant for the inside of a living-room window, not only for the beauty of its white star-like flowers, but also for the perfume emitted from them; but

This is a useful shrubby Meadow-sweet grown in some gardens as *S. ariæfolia*, a name derived from the fact that the leaves resemble those of the White Beam. A native of North-Western America, it is an old garden shrub, though by no means a common one. Mature bushes are from 6 feet to 12 feet high, which at the end of June and during July produce a profusion of the many-flowered terminal panicles of creamy white blossoms. As may be readily observed by the illustration given on this page, *S. discolor* forms a large, graceful bush. No hard-and-fast rule of pruning is required, all that is necessary being to thin out the growths when becoming too thick by removing the old worn-out wood. Soil is not an important matter with this *Spiræa*, though good loam and an occasional dressing of manure are helpful. Propagation is effected by seeds and cuttings. The latter, made of the young, ripened wood about a foot long, may be inserted outside at the present time, or cuttings of half-ripened wood can be inserted under glass during August.

A. O.

GARDENING FOR BEGINNERS.

PLANTING BULBS IN GRASS.

IN springtime bulbs are welcome whether grown in pots, borders, or grass plots. They are extremely beautiful in any position, and add very considerably to the attractiveness of the garden. If bulbs are planted under the turf where the soil is very poor, the growth will not be of great strength, and if the inexperienced cultivator unduly enriches such soil by adding rotted or other manures in bulk, the grass will grow very grossly in patches, and this will mar the general appearance of that part of the garden where the bulbs are planted. A soil of moderate richness does not need any manures added to it. Poor soils do, and the manure should be put in as follows: When the holes for the bulbs have been made, the soil immediately below the point where the bulbs will be placed must also be taken out and some well-rotted manure put in, not in large quantities, so that the growing bulbs will benefit and not the grass. Replace some of the soil and thoroughly mix it with the manure. If a small quantity of road scrapings, old potting soil, or any similar material which is procurable be put on the manure mixture, it will form a fit base for the bulbs.

Good Positions for Bulbs.—Nearly all kinds of bulbs that are usually grown in garden borders are suitable for planting in grass, the Hyacinth and Tulip not answering so well. Narcissi, Jonquils, Snowdrops, Crocuses, Scillas, the Grape Hyacinth and Ixias are very suitable. Under large trees with spreading branches, near hedges, in dells, in woodlands, on the lawn (in odd corners or at the edge of it) and on banks, bulbs look charming when in full flower.

Formal and Informal Planting.—When grown in the garden borders there must be a certain amount of formality in the arrangement, but when grown in grass the formality may be avoided. Informal

clumps are the most pleasing. My meaning will be made quite plain if readers will refer to No. 1 in Illustration A. The crosses there denote clumps of bulbs in the grass.

How to Plant Bulbs in Clumps.—No. 2 shows the turf turned back, and the circles in the soil beneath, indicated by No. 3, are the parts that must be broken up for the bulbs before the roll of turf is replaced. No. 4 shows a bank, the bulbs being planted in various positions on the bank itself, No. 5. The way in which the bulbs should be planted in clumps and singly is shown at Nos. 6 and 7, where turves are turned back for the purpose. Then there is a way of planting without

peeling off turf at all. It is shown at No. 8. The turf is simply cut crosswise and gently raised at the edges; then the soil is scooped out with the aid of a trowel, the soil is broken, the bulb planted and the turf firmly replaced.

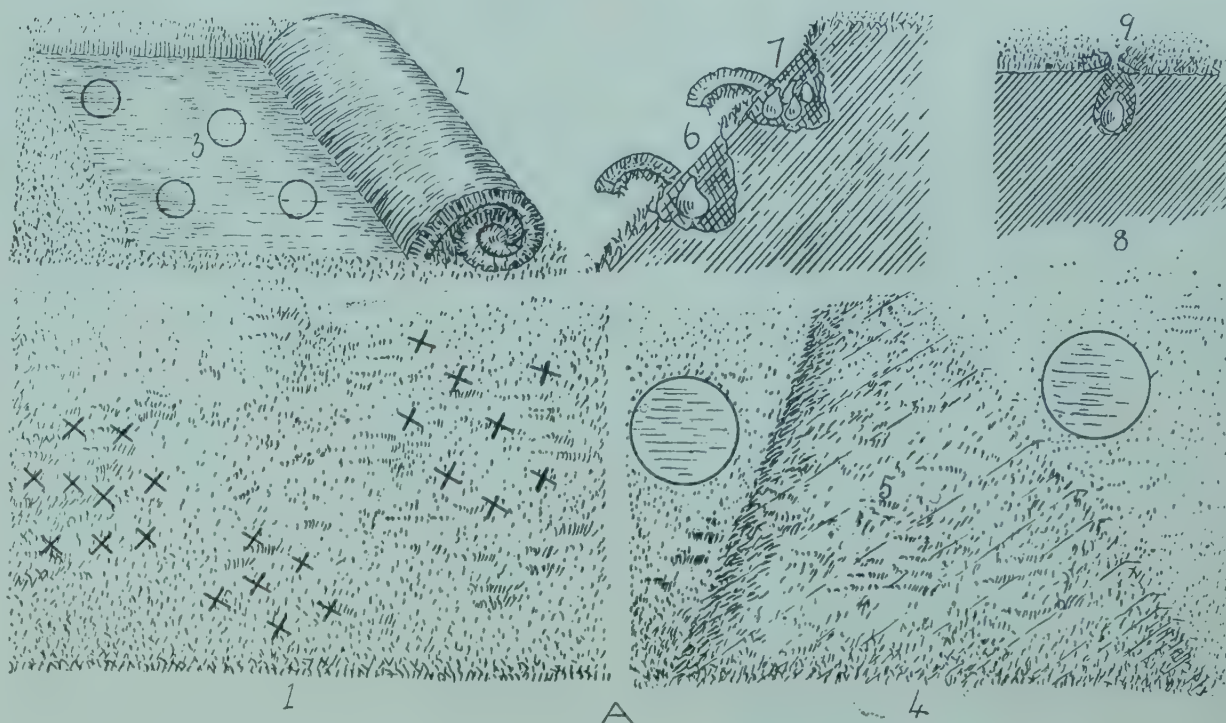
In the Illustration B the method of planting is shown. No. 1, a Narcissus bulb planted 3 inches below the surface with sand or sandy material at its base, No. 2, to ensure a free root action. No. 3 depicts the same bulb making growth very early in the spring through the turf. No. 4 shows the comparative depth at which the smaller bulbs, *i.e.*, Crocuses and Snowdrops, should be planted. No. 5 denotes a section of soil in which a bulb, No. 6, has been wrongly planted. It is not right to simply make a wedge-shaped hole with a sharp instrument and then forcibly thrust in a bulb as indicated. Such bulbs will grow, but not very satisfactorily. No. 7 indicates the soil below the peeled-off turf. When the bulbs are planted in the soil, the roll of turf, No. 8, should be pierced in several places (as shown by the crosses) immediately above the positions; then the bulbs will grow through freely.

G. G.

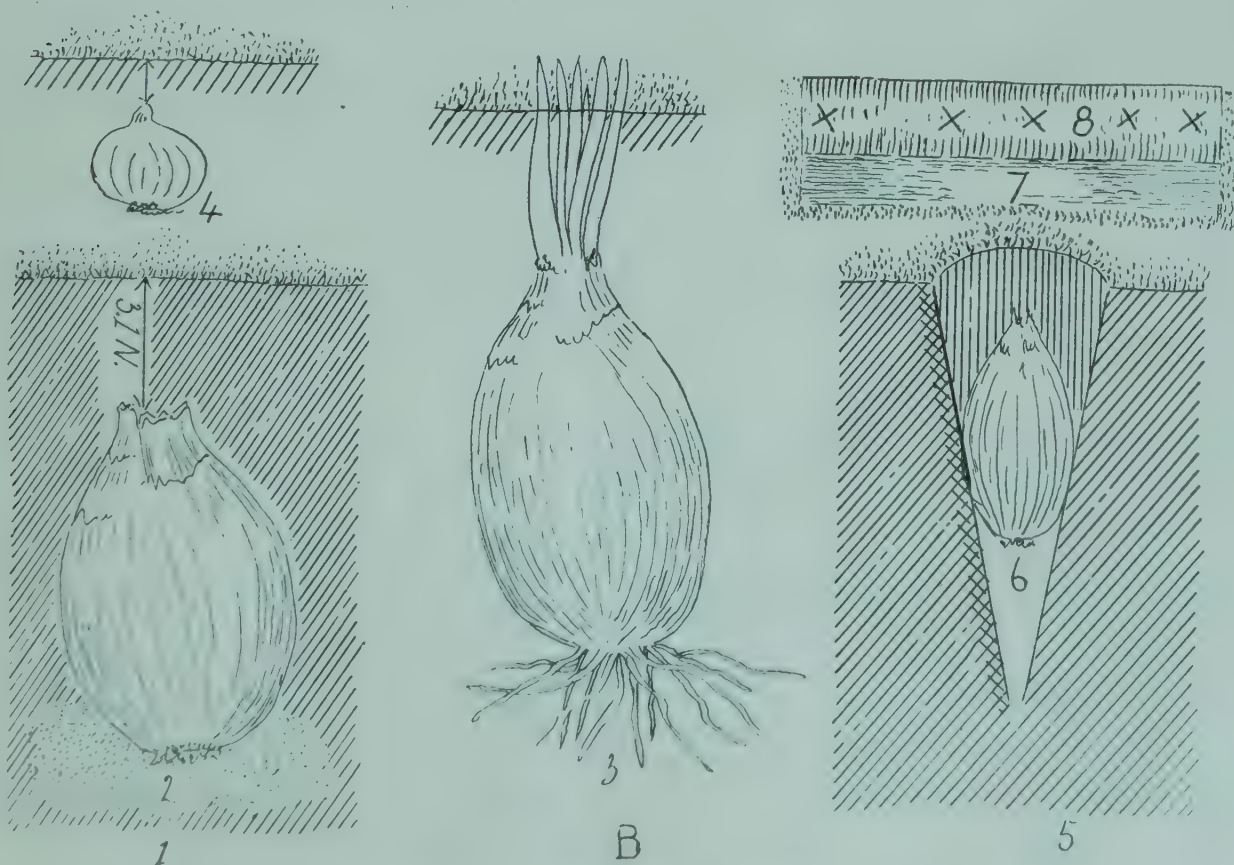
CLEMATIS PANICULATA.

NATURALLY late in flowering in most seasons, the blossoms of this Clematis are spoilt by frost before reaching maturity. The best results have so far been obtained in the milder parts of the country, or when the plants are growing against a sunny south wall. Making very good growths during the summer, these usually finish well by carrying a profusion of terminal and axillary inflorescences. The hot summers of the United States are responsible for the great popularity of *C. paniculata* in that country, where it flowers annually in great profusion. The plants are very vigorous in growth, attaining a height of 20 feet to 30 feet or more. The pinnate leaves are dark green and shiny, the flowers white, 1 inch to 1½ inches across, with a sweet but not very strong fragrance. It is a native of China and Japan.

A. O.



METHOD OF PLANTING BULBS ON LAWNS AND GRASSY SLOPES.



RIGHT AND WRONG WAYS OF PLANTING BULBS.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Tulips.—To have satisfactory results, these bulbs should be planted without delay in a fairly rich, porous soil occupying an open, sunny position. When planting, bury the bulbs as near as possible the same depth; this will ensure their blooming all at the same time. Select varieties that are specially recommended for bedding purposes by the merchants, and plant one variety at a time so as to prevent any confusion of the sorts.

Planting Roses.—If the site is not ready for immediate planting when the plants arrive, they should be laid out of doors in a shallow trench with the roots well protected with soil, and, should the roots be dry, immerse them first in water and soak them before heeling in. Before planting, cut off any damaged roots or coarse ones devoid of fibre, using a sharp knife and always cutting from the under side towards one. Plant as near as possible to the same depth as before, always allowing for the plant to settle a little, and make firm by treading. Unsuitable soils may be improved by adding good turfy loam, cut from an old pasture, and farmyard manure at the time of digging or trenching.

The Rock Garden.

Pernettyas.—Where space permits of the inclusion of berried shrubs, none is more beautiful at the present time than *Pernettyas*, and their evergreen foliage is attractive at all times. A shady and fairly moist position suits them, with a peaty soil or one containing plenty of humus.

Cotoneaster humifusa.—Though fairly new to cultivation, this shrub has become very popular for the rock garden, and is now very pretty and doubly interesting with its scarlet berries. The plant is absolutely hardy, and quite unlike any of the others in commerce. For clothing a rock or pocket its evergreen, creeping foliage would be hard to beat.

The American Cranberry (*Oxycoccus macrocarpus*).—is now quite an interesting lowly shrub with its crop of reddish fruits, which are large considering the size of the foliage. Choose a fairly damp soil and add a little peat.

The Hardy Fruit Garden.

Pruning.—Where a considerable quantity of fruit trees have to be pruned, I advise an early start with some of the trees that have shed their leaves. The work of pruning and nailing on a north wall is not very envious in cold weather. Morello Cherries are usually first in the list, and with these it is necessary to lay in plenty of young wood to ensure a heavy crop of fruit. The later trees of Sweet Cherries also may be planted in the same aspect. If due attention was paid to the pinching of the breast-wood, little pruning will be needed. Lay in securely the growths that were left for extension, remove any dead growths or weakly shoots, but do as little pruning as possible, which is conducive to gumming and canker.

Plants Under Glass.

Palms.—At this season especially the pots are well filled with roots, and, in addition to manurial stimulants, a little soot-water will be valuable and materially help in keeping the foliage a good colour. The plants will not need shade any longer, and on warm, bright days keep them well syringed. Scale is one of the worst pests, and must be got rid of by sponging with an insecticide and carefully removing with a brush. Handle the plants so as not to injure the leaves, remembering that these should prove a source of attraction over a long period. Syringe afterwards with clean, tepid water.

Achimenes.—While the growth is dormant keep the pots or baskets of soil containing the corms in a warm place, and withhold water until repotting again. If placed under a stage, lay the pots on their sides.

Caladiums.—To preserve these successfully during the winter months, the pots containing the tubers must be rested in a warm house, and, like the foregoing, when the foliage has ripened, be kept thoroughly dry.

Cyclamen.—These will now be past throwing up their flowers, and the plants will still benefit by occasional waterings with an approved fertiliser. We find Peruvian Guano, in addition to others, a valuable plant stimulant. Great care should be exercised in watering now, and avoid pouring the water on to the crown of the plant. Look the plants over occasionally and pull out any leaves that are decaying. Seedlings that were sown at a good distance apart in the pan will not need disturbing too soon, but any that are becoming crowded should be transferred to a pan or box or potted into small receptacles.

The Lawns.

Leaves.—Continue to sweep these up and cart away as often as possible. Though this seems labour in vain, it is highly beneficial to the grass, these frequent brushings distributing worm-casts. If allowed to remain, the leaves soon commence to rot, and are then very difficult to remove.

Pampas Grass.—This is extremely ornamental, and probably at this season one can locate the place where a clump or two would be a valuable improvement to the surroundings. The plants like a good soil, and are best planted or divided in the spring, when a fair-sized hole should be taken out and some better material added.

Fruits Under Glass.

Early Vines.—The earliest-forced Vines will now be ready for pruning and cleansing preparatory to being forced for another season's crop. The borders should have the surface soil and rubbish scraped off and taken away. How much may be removed depends upon the number of roots on the surface, which must be carefully preserved. Top-dress with some chopped loam to which has been added some lime-rubble, wood-ash and manure. Old turves laid downwards on a sprinkling of bone-dust and artificial manure make an excellent rooting medium. Give an abundance of ventilation whenever possible.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Planting.—Press to a conclusion the planting of border plants, bulbs for spring flowering, Wall-flowers, *Myosotis* and other plants for a similar purpose.

Roses.—Of these, home grown and propagated plants should be first transplanted, nursery plants not always being matured as yet, and having the foliage intact. In some instances it is good policy to lift and replant established Roses after thoroughly cultivating the soil and adding to it such manure as may seem fit. Scotch, Boursault, Gallica, Austrian Briar and other Roses that bloom early may be pruned now, or, rather, thinned of old and weakly growths.

Cultivating Flower-beds.—This is a suitable time to thoroughly cultivate the soil in beds and borders that have been occupied by summer-flowering plants. The soil is all the better if turned up annually to a depth of 18 inches, and a moderate amount of perfectly-rotted manure worked in. All flower-beds get out of shape, and the opportunity may now be taken to restore them to their original lines. It may be noted that beds to be occupied by Begonias, Pentstemons, Antirrhinums and other soil-exhausting plants may have a thin layer of manure spread over the surface. Soot is also helpful and, with the manure, becomes well mixed with the soil by springtime.

Storing Roots.—Great losses are frequently experienced with Dahlias, *Lobelia cardinalis* and others. Dahlias require a mild temperature of 45° to 50° to preserve the tubers, rot being almost certain to destroy them if too cold. They must be kept dry. *Lobelia*, on the other hand, so long as frost is not severe, may be frozen without harm. I keep them in boxes covered with leaf-soil in cold frames, and seldom lose any. Begonias are wintered in the Apple-room, laid out on the floor under the shelves. *Salvia patens* keeps best if buried deep enough to be out of reach of frost.

Shrubs.

Trimming.—Deciduous climbers, such as *Polygonum baldschuanicum*, now that they are denuded of foliage, should be roughly trimmed, and will be neater and less unsightly during the winter than if left to mature.

Protecting.—In the colder localities shrubs asking for protection during winter may now be seen to. Small plants are efficiently protected by means of very rough and loosely-made straw ropes wound around them. Very large ones may have straw or Bracken packed about the stems, and standard Roses and others should have Wheat or Rye straw placed lengthwise round the stems and tied top and bottom, and the straw near the top thickened to take in the heads. Spruce branches are usually employed to protect wall shrubs. They do not keep out frost; much as protect the plants from frost and thaw and the too rapid change brought about by the sun after hard frost.

Pruning.—In extensive shrubberies there is always a certain amount of dead wood to be expected annually, and previous to the general cleaning up before winter, an opportunity to cut it out may be taken. As little as possible of the dead material should be left. Dead portions, however small, have a distinctly injurious effect on ligneous vegetation, apart altogether from its unsightliness.

The Plant-Houses.

Roman Hyacinths.—These will now force successfully, the secret of success being to keep them darkened till the spikes are well advanced, after which a few days' exposure brings colour into the leaves and spikes. Too much heat is injurious.

Lily of the Valley.—Current year's growths may now be used. A strong bottom-heat with much moisture and darkness is essential, and only the best crowns should be used. A check is almost sure to prove fatal.

Perpetual Carnations.—Cuttings inserted three weeks ago will now be rooted, and should either be potted into 2½-inch pots if in boxes, or, if struck in 2½-inch pots, these should be removed to a cooler structure for a few days before repotting.

Asters.—Climax is a delightful plant for the conservatory. Single growths rooted in spring, planted out, and lifted not long ago and potted, are of much value for greenhouse decoration and cut flowers now and later. Jessie Croom is also useful, and other late sorts may be treated in the same way, but Climax is certainly superior to any.

The Rock Garden.

Rearrangements.—Since last writing, part of the rockery here has been completely overhauled and rearranged, a nasty stoloniferous weed having got among the plants necessitating the operation. Rose Hiawatha, the newer *Deutzias*, *Astilbes* and other plants have been introduced, as well as *Iris*, *Brodiaeas* and autumn-flowering *Crocuses*. Nowadays one must look to effect in all things, even in an assemblage of stones!

Cleaning.—Now that the foliage is off the trees, the rockery should be thoroughly cleaned of sticks, leaves and weeds, and any plant needing protection seen to. Some nice fresh compost neatly scattered over bare surfaces adds to the general appearance and gives it a cared-for aspect. Where slugs are troublesome, dustings of soot are of value, and they are also effective manurially to spring bulbs, *Colchicums* and autumnal *Crocuses*, which are all making roots.

Hardy Fruit.

Gathering.—The weather must be closely watched, so that the latest Apples and Pears are not caught by a severe frost. Generally the week we are entering on is quite late enough to let them hang. If the fruit cannot be gathered perfectly dry, see that it is dry before storing.

Planting.—Young trees from Southern nurseries are, as a rule, ready to plant about this time. From Northern nurseries it is better to delay two or three weeks before having them sent on. The chief point to observe in planting is the trimming of the roots, especially the broken and extra strong ones, planting just deep enough and giving efficient support to the trees till established. Early planting conduces to immediate root-production, and wind loosens and damages the new roots if the trees are unsupported. R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATE.

Scolopendrium vulgare crispum nobile (Bolton's Broad Form).—This is the somewhat cumbersome title of much the largest variety of Hart's-tongue Fern we have seen—large indeed even unto coarseness. Some of the biggest fronds measured 2 feet in length by 6 inches in width, the former taken from the soil to their tips; hence it is a giant in its tribe, and one in all probability whose present huge proportions do not represent full development. The coarsely cristate or fimbriate margins of the fronds present a plumose character generally, are of dark green colour, and are rendered the more attractive by reason of the almost ebony-coloured stem. The variety was first found as a wildling on Walton Crag, Lancashire. Exhibited by Mr. W. B. Cranfield, Enfield.

AWARDS OF MERIT.

Nephrolepis Millsii.—A distinct and rather neat-habited plant, the brownish-looking fronds of an acuminate character, and not unlike in form and colouring those of some of the *Polystichum aculeatum*s, though more erect. It increases freely by stolons and division, after the manner of its tribe. From Mr. W. A. Manda, St. Albans.

Chrysanthemum Mrs. John Maher.—A decorative Japanese variety of the purest whiteness, which is said to be a splendid keeper. Its purity alone will command for it a place, while its graceful and decorative character will assuredly please all. From Mr. T. Page, Hampton-on-Thames.

Chrysanthemum Mrs. Loo Thomson.—The shortest description of this excellent variety should also prove the most graphic, viz., that it is a sport from the beautiful single-flowered variety *Mensa*, sent out about three years ago. The colour is pale or canary yellow.

Chrysanthemum Charles Kingsley.—A single-flowered variety of a rich, almost intense golden yellow colour. It is one of those which impel admiration at a glance, at once of high decorative value and much excellence. These were exhibited by Mr. Norman Davis, Framfield.

Chrysanthemum Honourable Mrs. John Ward. A very large and handsome-looking yellow-flowered variety of the exhibition order, the long, drooping florets affording great depth to the flower-head as a whole. Exhibited by Mr. Charles Beckett, Chilton Gardens, Hungerford.

Chrysanthemum Bob Pulling.—A monster exhibition variety of good contour and form, and of intense golden yellow colour. The florets are of the drooping order, giving the flower-head great depth and importance, its value being enhanced by the exceptional richness of its colouring. Shown by Messrs. H. J. Jones, Limited, Lewisham, S.E.

Chrysanthemum J. W. Streeter.—A soft-coloured or canary yellow sport from the well-known and highly-popular Japanese incurved variety *H. W. Thorpe*, and, like the original, of excellent form and outline. We regard it as indispensable, albeit the rather formal character of these incurved varieties does not appeal to all. From Messrs. Cragg, Harrison and Cragg, Heston, Middlesex.

Chrysanthemum Miss M. Borrer.—An attractive single-flowered variety whose florets are coloured a deep rosy lilac. The colour is warm-looking, and should prove effective under artificial light. The naturally-grown sprays demonstrated

freedom and utility. Exhibited by Mr. L. F. Harrison, Orchards, East Grinstead. The stock is in the hands of Messrs. Whitelegg and Page, Chislehurst.

NEW ORCHIDS.

There were no fewer than ten new Orchids to gain awards; of them four received first-class certificates, and the remaining six awards of merit.

First-class certificates were awarded to *Cattleya labiata* Opal, a handsome white variety with a tint of pink and gold on the lip; *Brasso-Cattleya digbiano-Mossiae* The Dell variety, a remarkably well-formed white variety raised by crossing *Brassavola digbyana* and *Cattleya Mossiae* Wageri, both of the foregoing novelties being shown by Baron Bruno Schröder; *Cypripedium Pallas-Athene*, a flower of perfect shape, with dark purple spotting, shown by W. R. Lee, Esq., Heywood; and *Cymbidium Doris*, an interesting hybrid between *C. tracyanum* and *C. insigne*, shown by Messrs. J. and A. McBean.

Awards of merit were granted to the following: *Sophro-Laelio-Cattleya Sandhage*, from E. H. Davidson, Esq.; *S.-L.-C. Menippe* H. S. Goodson, from H. S. Goodson, Esq.; *Laelio-Cattleya de Hemptinne*, sent by Count Joseph de Hemptinne of St. Dennis, Ghent; *Cattleya Princess Mary*, a hybrid from *C. dowiana*, shown by Pantia Ralli, Esq.; *Cattleya Maggie Raphael* Goodson's variety, from H. S. Goodson, Esq.; and *Laelio-Cattleya Golden Oriole* Holford's variety, exhibited by Lieutenant-Colonel Sir George Holford, K.C.V.O.

The foregoing awards were made by the Royal Horticultural Society at the meeting held on October 22.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

DAFFODILS FOR BEDDING (S. C. R.).—You cannot do better than employ such as *Emperor*, *Sir Watkin*, *Barri conspicuus*, *Grande*, *Poeticus*, *Almira*, *Mme. de Graaff*, *Mme. Plomp* and *Empress*, all excellent and cheap sorts for the purpose named. You might plant the varieties at their own depth asunder, or twice that distance or even more, according to circumstances.

YUCCA FILAMENTOSA (M. A. R. G.).—The young growths which push up after a plant has flowered must be divided up singly. This may be done by taking them off and inserting as cuttings when large enough; or, if growing from the ground, divide them up when well rooted. May is the best month to transplant *Yuccas*. The cuttings will root best in a heated greenhouse.

NAMES OF CHRYSANTHEMUMS (A. E. H.).—We have experienced considerable difficulty in naming the blooms sent to us, as in almost every instance the numbers attached to them had become loosened in the course of transit through the post. We therefore give you the names as far as we are able to identify the colours and form of each one. They are as follows: *White Points* (rosy purple with white points), *Mme. Casimir-Perier* (white, freely suffused pink), *Crimson Marie Massé*

(chestnut bronze), *Horace Martin* (yellow), *Robbie Burns* (cerise pink), *Mme. Marie Massé* (lilac mauve) and *Ethel Blades* (compact crimson flower).

BANANA FRUITING OUTSIDE (T. J. S., Orled).—We are very interested to hear of your success in growing a plant of *Musa* (Banana) to the fruiting stage out of doors in this country. Your garden must be favourably situated for such a plant to grow outside for five years and reach a height of 8 feet. Plants of *Musa* fruiting outside in this country are occasionally met with, but it is usually in a sheltered garden in the South or West, Cornwall or Devon, for instance. There are one or two records of plants living outside in sheltered Surrey gardens. At Coombe Wood the Japanese Banana (*Musa Basjoo*) survived for several years. Coming from Japan, this is the name we should suggest for your plant. The fruits of this are about four inches long.

IRIS SUSIANA (A. F.).—This weird and beautiful Iris is only a success when given a special course of treatment, and is in no sense to be regarded as a reliable border plant permanently in this country. Native of Asia Minor and ripening early in the season, the plant usually receives a good ripening, which in the open air in this country is very rarely imitated. In the first year following importation the plants flower with a fair degree of certainty, as do others grown specially in such places as Guernsey. To succeed with it at all, it is best to regard it as a greenhouse plant, and, having flowered it, to place the pot or pan on a shelf where it will get the full benefit of the sun for three or four months, or even longer, no water being afforded meanwhile. The plants should not, of course, be so dried off until the foliage shows signs of maturing, after which, during the resting period, the plants should be kept absolutely without water. When restarting them into growth—they will do this naturally in December or thereabouts—meagre supplies of water should be given, and more as the leaf-growth advances. Kept in the fullest light and free from insect pests, flowering is more reliable, and the plants will not require potting more than once every two years. A marly loam, or one of good fibrous character with which old mortar rubble has been freely incorporated, will, with firm potting and perfectly free drainage, be all that is necessary from this point of view. We should advise you to start afresh with the best roots you can obtain.

EXHIBITING "HARDY PERENNIALS" (J. A. M.).—Unless the terms of the schedule contain some saving clause, the inclusion of Dahlias in an exhibit of "hardy perennials" should have been followed by disqualification, while the *Chrysanthemums* named would have given rise to serious doubt. In your favoured district the latter might come within the wording of the schedule, though generally for exhibition work it would not pass muster. The *Dahlia*, however, is another matter altogether, and even though the tubers of some varieties are hardy enough to endure if deeply planted and protected, the majority would not be so, and the plant would certainly not be; hence its inclusion would not be tolerated by 1 per cent. of capable judges. The case to which you refer, however, is the outcome of an ambiguous wording of the schedule, and a class for "hardy perennials" without any qualifying clause might include *Roses* and other flowering shrubs—anything, indeed, that is characterised by hardiness and a perennial duration. This looseness in the compilation of schedules is a pitfall to many, and the more confusing to exhibitors when the judging is not in competent hands. The secretary, in informing you that the *Dahlia* is a "hardy perennial," was obviously in error, as the first frosts of autumn should unmistakably prove. There is so much looseness of wording existing in schedules to-day that we hope to devote an article to the subject at a later date in the hope of making the way more plain to secretaries, committees and exhibitors alike.

TREES AND SHRUBS.

HORSE CHESTNUT LEAVES (Courtown).—There seems to be no reason to doubt that the leaves you enclose are those of the common Horse Chestnut; but to make quite sure a flowering shoot is necessary. The colour of the leaves is both curious and interesting. It is probably one of two things—either a sport, or a portion of the tree unhealthy from disease. If you ascertain that the coloured leaves are not due to the second reason, then it is worth propagating by grafting on young plants of the common Horse Chestnut. Some of our most ornamental trees have originated in the first instance from sports. It might be worth while consulting a local nurseryman with a view to propagating ten or twenty plants, and watching their behaviour for the next two or three years.

THE GREENHOUSE.

SEEDLING FUCHSIAS (G. G.).—The expanded flowers on some of the specimens sent had dropped: hence it was difficult to make out to which number they belonged. They comprise a very pretty selection of seedling varieties belonging to that race we received from Germany a few years ago. Nos. 1, 3, 4 and 5 appear to us very much alike, and the best of the four should certainly be well worth propagating. There may be individual differences, but from the small sprays, with most of the expanded blooms fallen, one cannot say. No. 2 strikes us as a fine and, as far as we know, a distinct variety. It would be as well to submit them to some firm who make a speciality of this class of plants. At all events, we think, if you have a good specimen or specimens of the most distinct sorts, it would be a desirable plan to submit them to the floral committee of the Royal Horticultural Society, Vincent Square, Westminster, S.W.

DOUBLE BEGONIAS DROPPING FLOWER-BUDS (H. C.).—It is exceedingly difficult to answer your question, for though everything points to an error in culture somewhere, yet the details as given by you are such as should ensure success. The pots used are certainly rather small, and we are inclined to think that possibly the ball of earth gets too dry, an opinion strengthened by the fact that most of the blossoms drop directly they are watered. A reasonable amount of air should, of course, be given to the plants; while by the term "well shaded" we presume you do not imply that they are deprived of the very necessary light, but only protected from the sun's rays. We regret that it is impossible for us to put our finger on the cause of the trouble, but hope that our suggestions may help you to overcome it.

BEGONIA (W. T. E.).—Your Begonias are badly attacked by the Begonia mite, which seems to get more troublesome year by year. Last season the hot weather was blamed for its rapid increase, but it scarcely applies this summer, although the pest is as bad as ever. Not only are Begonias attacked by it, but many other plants. We have had, during the present year, several badly-infested specimens of Cyclamen submitted to us. The best way to get rid of the enemy is to dip the plants in a nicotine mixture, or to vaporise with the XL All Vaporiser. A single application will not, however, suffice, so it must be done three or four times at intervals of five or six days. A prominent feature of this pest is that it does such a deal of mischief before its presence is suspected; hence, though you may destroy the mite, you can never hope to restore the plants to their normal health this season.

FRUIT GARDEN.

PLANTING APPLE TREES IN ASPARAGUS-BEDS (J. D. B., Cambridge).—We do not advise you to plant Apple trees in the Asparagus-beds. They would, as you suggest, make very rank growth, and the Asparagus would also suffer.

LEAVES FOR INSPECTION (W. H. B.).—It is too late to do much now. The leaves have apparently been attacked by aphides in the early part of the year. Quassia and soft soap is the best spray to use, or a nicotine preparation, but it must be used as soon as the aphids hatch out in the spring, usually about the beginning or middle of April, if the spraying is to do its work properly. The Apple is Worcester Pearmain.

STORING WALNUTS (Hetty).—Walnuts when freshly gathered should be spread out in the sun either in an airy structure or out of doors for a few days to dry. They may then be packed in layers in jars or large flower-pots, with a little salt between each layer, and be buried in a heap of sand until required for use. Another way is to subject the Nuts to sulphur fumes for an hour or two, and then pack them in jars in the same way, afterwards burying the jars in sand. The sulphur fumes have the effect of killing any fungus germs which may be present on the shells.

LEAF-CURL IN PEACH LEAVES (J. R. K.).—It is cold weather which brings this about, this condition favouring an attack by a fungoid disease, which causes the peculiar distortions in the leaves. The best course to take in the matter is to pull off the diseased leaves and burn them. This will get rid of the green or black fly as well, which are generally found in the curled-up leaves. Other healthy leaves will follow. Messrs. G. Bunyard and Co., Limited, of The Nurseries, Maidstone, claim to have an effective preventive against its attack, provided it is applied when and as directed by them. It is called "Medela." Nothing can cure the leaves once they are affected.

TO GROW PEACH TREES IN POTS (J. C. Le S.).—The starting of these young trees by budding or grafting in the first instance, and the subsequent treatment of them, is no doubt interesting work; but it is of so highly technical a nature that an amateur without previous experience in the work would inevitably come to grief in the attempt and his labour prove abortive. It would be far better for you to purchase the young trees you may require ready grafted and ready trained. Two year old trees are to be obtained at little cost from any nurseryman advertising with us. The best time to purchase is early in November, when they may be top-dressed with soil, and the pots buried in fine coal-ashes to the depth of 4 inches above the pots in an open sheltered position. They may remain here until the time comes for them to be placed in the greenhouse, which should be the first week in February. Should frost prove severe during winter, the trees should have slight protection by having straw or Bracken or mats placed round them. When taken into the greenhouse, give them the lightest and most airy position possible. The question of ventilation of the house and watering the trees is one of the most important items in the culture of these trees. There should always be a slight circulation of air round the trees, and they should never suffer from dryness at the root. On the other hand, it is equally important for them not to be too wet at the root for any length of time.

KITCHEN GARDEN.

CARROTS IN A WOODY CONDITION (H.).—Generally speaking, the cause of Carrots being in the condition you mention is poverty or shallowness of the soil or want of deep cultivation. Carrots grow best on land which has been deeply trenched and liberally manured for a crop the previous year. If you have not such a piece of land available, you should trench a piece as soon as you can (2 feet deep) or lay a good dressing of manure in the bottom trench.

MISCELLANEOUS.

MAKING A MORAINÉ GARDEN (J. B. C.).—An illustrated article on this subject appeared in our issue dated January 27, 1902.

MOLES UNDER PEAR TREE (O. H. B.).—We know of no method by which you can poison or suffocate the moles as you suggest. The only remedy seems to be to trap them by the usual iron traps. If you can find a run where they go to drink, this is the best place to set the trap, preferably in the hardest soil you can find.

VARIOUS QUESTIONS (E. J., Radlett).—Basic slag may with advantage be applied in the previous autumn to the ground destined for the Tomato. The phosphates will then be available for the crop. But why not lime the soil and then use superphosphate? The Apple marked (b) is the Siberian Crab. We regret we cannot name Apples from imperfect fruits. Typical ripe fruits should always be sent. The fruit is very badly attacked by *Fusicladium dentriticum*. Bordeaux mixture is the best thing to apply; but it is equally important to prune out all diseased shoots during winter, and to spray during winter with a solution of copper sulphate, 1oz. to twenty-five gallons of water.

BERBERIS BERRIES (J. F.).—The berries of *Berberis Darwinii* may be used in the same way as the common *Berberis* (*B. vulgaris*) for making into jelly, although they are not often used for the purpose in this country. *Berberis* berries are said to make an excellent preserve; but as the seeds are rather large, the boiled fruit requires straining and the juice boiling again before bottling. If you follow the method usually adopted for making Red Currant jelly, the preserve ought to be a success. There will probably, however, be a little more sugar required than is usual with Red Currants. In America the fruits of *Berberis Aquifolium* are used rather extensively under the name of Oregon Grapes. Certain Himalayan *Berberis* are also esteemed on account of their fruits. We have not heard of the fruits being used with whisky.

NAMES OF FRUIT.—*North Wales*.—Apple Northern Greening. —*Phoenix*.—2, Lamb Abbey Pearmain; 3, Dutch Mignonne; 4, Cellini Pippin. —*J. E. Phillips*.—1, Marie Louise d'Ucle; 2, Beurré Clairgeau; 3, St. Luke; 4, Beurré Hardy; 5, Beurré Diel; 6, Beurré Dumont. —*Devonia*.—Margil. —*H. M.*.—1, Stubbard; 2, Reinette Grise; 3, Wellington; 4, Lane's Prince Albert; 5, Braddick's Nonpareil; 6, Miller's Seedling; 7, Ribston Pippin; 8, Kentish Fillbasket. —*R. S. Weallins*.—1 and 2, Newton Wonder; Pear, Black Pear of Worcester.

NAMES OF PLANTS.—*E. H. L., Newmarket*.—*Rhamnus catharticus* (Buckthorn). —*R. T., Breconshire*.—*Juniperus Sabina prostrata*, or *Prostrate Savin*. —*S. P. R., S.W.*.—1, *Chrysanthemum Rubis*; 2, Seedling *Chrysanthemum*; 3, *Sedum Anacampteros*; 4, *Sedum Sieboldii*. —*B. G.*.—*Chrysanthemums*: 1, *Rubis*; 2, *Goacher's Crimson*; 3, *C. indicum flore plena*. *Asters*: 4, *A. multiflorus*; 5, *A. Amellus* var. *bessarabicus*; 6, *A. Novi-Belgii densus*; 7, *A. Amellus* variety; 8, *Sedum spectabile*; 9, *Stachys lanata*; 10, *Pulmonaria officinalis*.

SOCIETIES.

NORTH OF ENGLAND HORTICULTURAL SOCIETY.

This society held its monthly exhibition in the Corn Exchange, Leeds, on October 17 and 18, when a fine display of fruit, flowers and vegetables was staged. The proceeds were given to the Leeds Workpeople's Hospital Fund. An eighty-guinea challenge cup for the best exhibit went to Mr. J. Pickersgill, Weetwood, Leeds, for a group of foliage plants, consisting of well-grown and highly-coloured Crotons, interspersed with *Oncidiums* and *Cattleyas*. This group also secured the society's gold medal. Mr. W. D. Cliffe of Meanwood Towers, Leeds, took the fifteen-guinea cup for the best amateur exhibit, which comprised seventy-five dishes of magnificently-grown vegetables. Mr. William E. Sands, Hillsborough, of Irish fame, had a large and interesting stand of sixty kinds of seedling Potatoes. The exhibit of Messrs. Webb of Stourbridge, containing fifty varieties of Onions, all well grown and admirably staged, came in for much attention from the visitors during the two days.

ORCHID COMMITTEE.

Messrs. Mansell and Hatcher, Rawdon, Leeds, had a most beautiful and tastefully-arranged group of Orchids. Every plant was a perfect specimen of culture, and this, combined with the arranging, left a deep impression upon those who had the pleasure of seeing it, the colours being so harmoniously blended that a fitting description can only be conveyed when describing it as a "harmony of mauves." The society's gold medal was awarded.

A silver-gilt medal was awarded to Mr. W. H. St. Quintin, Scampston Hall (gardener, Mr. F. C. Puddle), for a small group of seedling *Cattleyas*. Among them The Bride was awarded a first-class diploma, while *Lælio-Cattleya scampstonensis* secured a second-class diploma.

J. H. Craven, Esq., The Beeches, Keighley, had many notable kinds in his collection. *Cypripedium Boltonia* secured a first-class diploma. Large silver medal.

Mr. W. Shackleton, Bradford, secured a bronze medal for a group, also a second-class diploma for *Cypripedium Charlesworthii*.

FLORAL COMMITTEE.

A group of foliage and flowering plants was exhibited by Mr. J. Pickersgill, Borden Hill, Leeds (gardener, Mr. J. Donoghue). Gold medal and challenge cup.

Mr. B. Bagshaw, Chapel Allerton, Leeds, showed Carnations. Bronze medal.

Messrs. William Cutbush and Sons exhibited Michaelmas Daisies, with *ericoides* predominating. Large bronze medal.

A large bronze medal was awarded to Messrs. Little and Ballantyne, Carlisle, for Potatoes and conifers.

Mr. T. C. Edwards, Leeds, showed a stand of hardy *Chrysanthemums*. Bronze medal.

Mr. A. C. Watson, Morley, exhibited Begonias of the Gloire de Lorraine type. Bronze medal.

For a collection of Michaelmas Daisies, Messrs. Harkness and Sons, Bedale, were awarded a bronze medal. This firm also received an award of a second-class diploma for a sport from *Chrysanthemum Goacher's Crimson* named Mrs. J. Fielding.

Messrs. S. Broadhead and Sons, Huddersfield, showed rockwork. Large bronze medal.

A silver medal was awarded to Messrs. Young and Co., Cheltenham, for a stand of bright and well-grown flowers. Among them were *Enchantress*, J. Whitcomb Riley and *Britannia*, which were very good.

Messrs. G. Gibson and Co., Bedale, were awarded a bronze medal for rockwork, also a second-class diploma for *Berberis Wilsonæ*.

A large bronze medal was awarded to Messrs. William Bousall and Son, Harrogate, for an extremely fine collection of *Bouvardias* in many varieties.

For a stand of Apples, Pears and Carnations, Mr. William Laurensen, Yarm-on-Tees, was awarded a large bronze medal.

Mr. T. Blackburn, Huddersfield, secured a silver medal for a small group of well-grown Carnations. The individual flowers in this collection showed a high standard of cultivation. *Empress Day*, *Colossus* and *White Perfection* were outstanding among the many varieties staged.

Messrs. W. and J. Brown of Peterborough again had one of their attractive stands of Roses, the arrangement being excellent. Mme. Victor Verdier, Juliet and Earl of Warwick were good flowers for the time of the year. Large silver medal.

Messrs. John Hill and Sons, Stone, Staffs, were awarded a large silver medal for shrubs.

Messrs. Dickson and Robinson, Manchester, got together a very large group of *Chrysanthemums* and *Asters*, the most striking feature to be observed being the freshness and cleanliness of both flowers and foliage. We noticed such good kinds as Mr. Cecil Davis, Ella, Ringdove, Albulus, Climax (very good), St. Egwin and Thomsonii. Large silver-gilt medal.

Messrs. Little and Ballantyne, Carlisle, were awarded a silver medal for shrubs.

A large silver medal was awarded to Messrs. William Wells, Merstham, Surrey, for *Chrysanthemums*, John Edwards, Cranford Yellow and Miss M. Walker being very good.

A silver medal was awarded to Mr. J. C. Fordy, Castleford House, Northumberland, for *Gladioli*.

A large bronze medal was awarded to Messrs. Ker and Son, Liverpool, for a stand of Crotons and Cyclamen.

A vote of thanks was given to the Lakeland Nurseries, Windermere, for an exhibit of Begonias and Ferns.

FRUIT AND VEGETABLES.

Mr. W. D. Cliffe, Meanwood Towers, Leeds (gardener, Mr. W. Haigh), was awarded a large silver medal and challenge cup for vegetables, Onions Premier and Barnet Hero being well grown. The collection of Potatoes was very creditable.

Mrs. Hogg, Meanwood, Leeds, had a large stand of bottled fruits, which secured a silver-gilt medal.

A silver medal was awarded to Messrs. Little and Ballantyne, Carlisle, for their interesting collection of fruit, such kinds as Apples Peasgood's Nonsuch, Lord Derby, Maltster, Norfolk Beauty and Beauty of Stoke being very good.

A vote of thanks was given to the Hunsingore and District Fruit-growers' Association for a collection of fruit.

For sixty varieties of Potatoes, Mr. William E. Sands, Hillsborough, Ireland, was awarded a large silver medal.

Mr. R. J. Foster, Stockeld Park, Wetherby, Yorks (gardener, Mr. John Turton), had a small but well-grown collection of hardy fruits. Pears Louis Bonne of Jersey and Durondeau, and Apples Rival, James Grieve and Charles Ross were exceptionally fine. Good decoration in this exhibit showed off the produce to advantage.

Messrs. Webb, Wordsley, Stourbridge, were awarded a large silver medal for fifty varieties of Onions. We noticed that Cranston's Excelsior, Webb's New Masterpiece, White Lisbon and Snowball were well grown and solid.

Messrs. W. Seabrook and Sons, Chelmsford, were awarded a large silver-gilt medal for a stand of Apples, Peasgood's Nonsuch, King of the Pippins, Blenheim Orange and Allington Pippin being outstanding varieties.

A second-class diploma was awarded to Mr. Yeld, York, for Aster Celia.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Royal Horticultural Society's Hall on Monday, October 14, Mr. Thomas Winter in the chair. One hundred and thirty-one new members were elected, being a record number. Gardeners have still an opportunity of making the United their approved society, and should fill up their forms at once. The sick-pay amounted to £38 13s. A grant from the Benevolent Fund to enable a distressed member to pay his contributions was made, also a grant to a member from the Convalescent Fund. One member was allowed to withdraw his interest. Business relating to National Health Insurance was also dealt with, and a sub-committee formed to advise upon any current business arising from the same.

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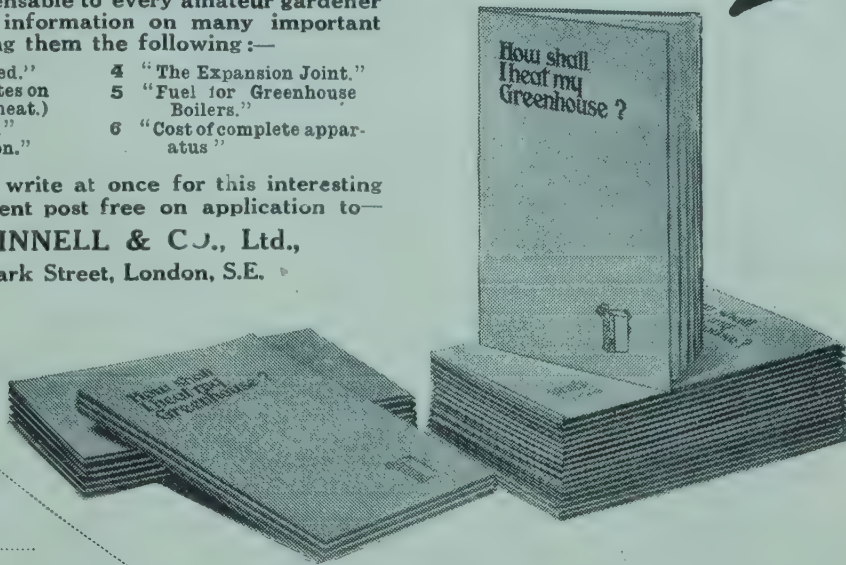
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100 Princeps ...	...	2 6	12 Iris, German,	
100 Ornatus ...	...	2 6	name, for ...	6 0
100 Double Daffs. ...	...	4 0	12 Iris, English, to	
100 Dbl. White Narcis. ...	...	2 6	name, for ...	1 6
100 Pheasant-eyes ...	...	2 6	100 Anemones, Scarlet...	4 6
100 Frank Miles ...	...	1 6	100 Anemones, The Bride	1 9
			100 Anemones, St. Brigid	5 0
			100 Scilla Siberica ...	3 0
			100 Freesia ...	3 0
			100 Summer Snowflakes	5 0
			12 Lillium candidum ...	2 6
			12 L. Crown Imperial...	2 0
			12 L. Auratum ...	7 6
			12 L. Croceums ...	4 0
			12 L. Longiflorums ...	4 0
			100 Snowdrops ...	1 6
			100 Ixias, to colours ...	2 6
			100 Crocus, in colours ...	1 3
			100 Lilly of the Valley...	2 6
			100 Jonquils ...	4 6
			100 Ranunculus ...	3 0
			100 Montbretia ...	3 0
			100 Aconites ...	3 0
			100 Chionodoxa ...	2 6
			100 Polyanthus Narcis...	3 0
			100 Alliums ...	3 0
			12 Christmas Roses ...	4 0

TULIPS.		s.d.
100 La Reine ...	...	3 0
100 Cottage Maid ...	...	3 0
100 Chrysolora ...	...	3 0
100 D. de Parma ...	...	3 0
100 Keizerkroon ...	...	4 0
100 Golden Crown ...	...	3 0
100 Picotee ...	...	4 0
100 Bouton d'Or ...	...	3 0
100 Prince de Ligny ...	...	4 0
100 Duc Van Thol., Sgl.	...	4 0
100 Duc Van Thol, Dbl.	...	3 0
100 King of Yellows ...	...	4 0
100 Mixed Tulips ...	...	1 6
100 Mixed Darwins ...	...	4 0
100 Darwins to name ...	...	10 6
100 Parrot Tulips to	...	
colour ...	...	2 6
12 Begonias, choice ...	...	1 6
12 Violets, in sort ...	...	1 6

SPECIAL OFFER in mixed NARCIS, and DAFFODILS, also Tulips for planting in grass, shrubberies, hedgerows, etc. Narcissus and Daffodils, 5/-, 7/6, 10/- 1,000. Tulips, 10/-, 15/-, 20/- per 1,000.

Many other varieties to offer.

Also all kinds HERBACEOUS PLANTS.

Any of the above, half quantities at half price.

FRUIT TREES.—Apples, Pears, and Plums, all fruiting trees, 2/- per dozen. Gooseberries, Currants, black, red, white, 3/- per dozen. Loganberries and Raspberry-Strawberry, all 3d. each. Raspberry Canes, any variety 3/-, 4/-, Strawberry Plants, 1/6. All per 100.

All kinds of FLOWER and GARDEN SEEDS, also POTATOES.

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Old Grammar School, WISBECH.

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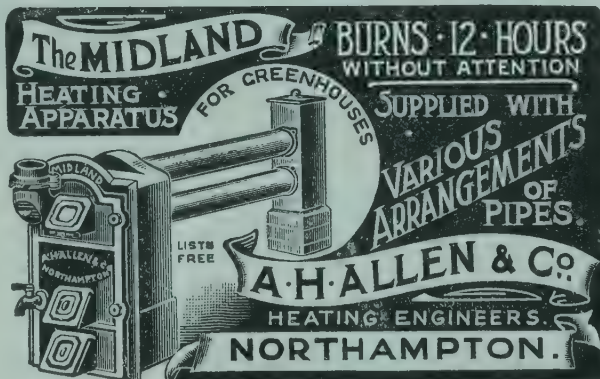
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For IRON FENCING, FARM BUILDINGS AND GENERAL OUTDOOR WORK

PRICE
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in 9, 18 &
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casks.



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Red or Chocolate Varnish, 2/6 per gallon.

Delivered free in above quantities.

Our other Specialities include Iron Fencing, Hurdles, Gates, Railing, Wire Netting, Galvanized Iron Sheets, Hay Sheds, Farm Buildings, Agricultural Requisites, etc., etc.; and large illustrated catalogues will be sent free on application, mentioning this paper.

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ROSES FOR PERGOLAS.

(PERPETUAL FLOWERING.)

The National Rose Society recommends the following kinds, and we will supply at 1/- each, or 12 kinds for 8/-, and send free for cash.

A. Stella Gray	Longworth Rambler
Cl. Caroline Testout	Reve d'Or
Gloire de Dijon	Climbing Aimie Vibert
Reine O de Wurtemberg	Conrad F. Meyer
Bouquet d'Or	Mme. A. Carriere
Cl. Mrs. W. J. Grant	W. A. Richardson

GOOD ROSES FOR TOWNS.

The National Rose Society recommends the following, and we will supply at 9d. each, or the 11 kinds 7/6, and send free for cash.

Caroline Testout	Mme. Ravary
Hugh Dickson	Ulrich Brunner
Mme. I. Pereire	Gustav Grunerwald
Mrs. Paul	Mme. A. Chatenay
Dr. O'Donel Browne	Mrs. J. Laing
La Tosca	

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DUTCH, CAPE, AND EXOTIC BULBS & PLANTS

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MERTENS & CO.,

3, Cross Lane, London, E.C.

CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

"PERPETUAL-FLOWERING CARNATIONS."

THE second meeting of the winter session was held in the Institute of Agriculture on the 18th ult. Mr. E. H. Christy presided over about sixty members and Mr. Montague Allwood, Hayward's Heath, gave a very instructive lecture on "Perpetual-flowering Carnations." Mr. Allwood in the course of his remarks pointed out the premier position which the Carnation holds in the floral world, and also that it was a flower within the reach of both the rich and the poor. As a high temperature was not required, its cultivation could be easily mastered by those who were able to grow the Chrysanthemum, air, light and a temperature just above 50° being the only requirements. Dealing with the propagation, the lecturer said the chief thing was to get good cuttings, and it was advised to select the cuttings from the centre of the stem, as cuttings taken from the base of the shoot were too slow in growth, and those taken nearest the flower were too weak. Shoots of a half-ripened nature should be selected, and when the cuttings were made they should be inserted in sand and not loam, as the latter has a tendency to hold more moisture than is good for the cuttings. A compost of loam, well opened with sand, and about a fifth of stable manure, together with lime rubble (if the latter ingredient was deficient), would be quite suitable to use in potting on the cuttings after rooting. The method of stopping was fully explained, and it was advised to stop down fairly hard into mature wood, such as down to six leaves. Mr. Allwood made special mention of the Perpetual-flowering Carnations for summer bedding, and felt that border Carnations would soon be a thing of the past; but care should be taken to give the plants well-drained soil, as a water-logged bed or border was fatal to their welfare.

THE EDITOR'S TABLE.

Polyanthuses from Camberley.—Mr. J. Crook, The Avenue, Camberley, sends some extra fine Polyanthus flowers, which are really remarkable for so late in the year. The apricot colour shades among them are charming under artificial light. Mr. Crook writes: "I am sending for your table blooms of my Polyanthuses, showing how fine they are so late in the year. We have them now in almost all colour shades. I would like you to specially notice the bunch of apricot and bronze colours. The former I am hoping to fix this season. Many growers are under the impression that this out-of-season blooming is unnatural; but this is not so, and in no way affects the blooming in the spring. During the thirty years I have been working at this strain I have often seen the plants in bloom all the winter in mild seasons, especially in the West of England."

LEGAL POINT.

Cutting Down Rose Bushes (F. S.).—Much depends upon the contents of the agreement for tenancy entered into between A. and B.; but, assuming that there is no special clause in the agreement dealing with Rose trees, &c., I think that if the trees were maliciously cut down by B., although planted by him, A. could claim damages; but A. would have great difficulty in proving damage. B. might very well say that he cut the Rose trees down because he thought it would be beneficial to them that he should do so. I do not think it is at all likely that A. could prosecute B. successfully. It certainly would not be worth his while to run the risk of heavy expense and the probability of a resulting action for malicious prosecution.—BARRISTER.

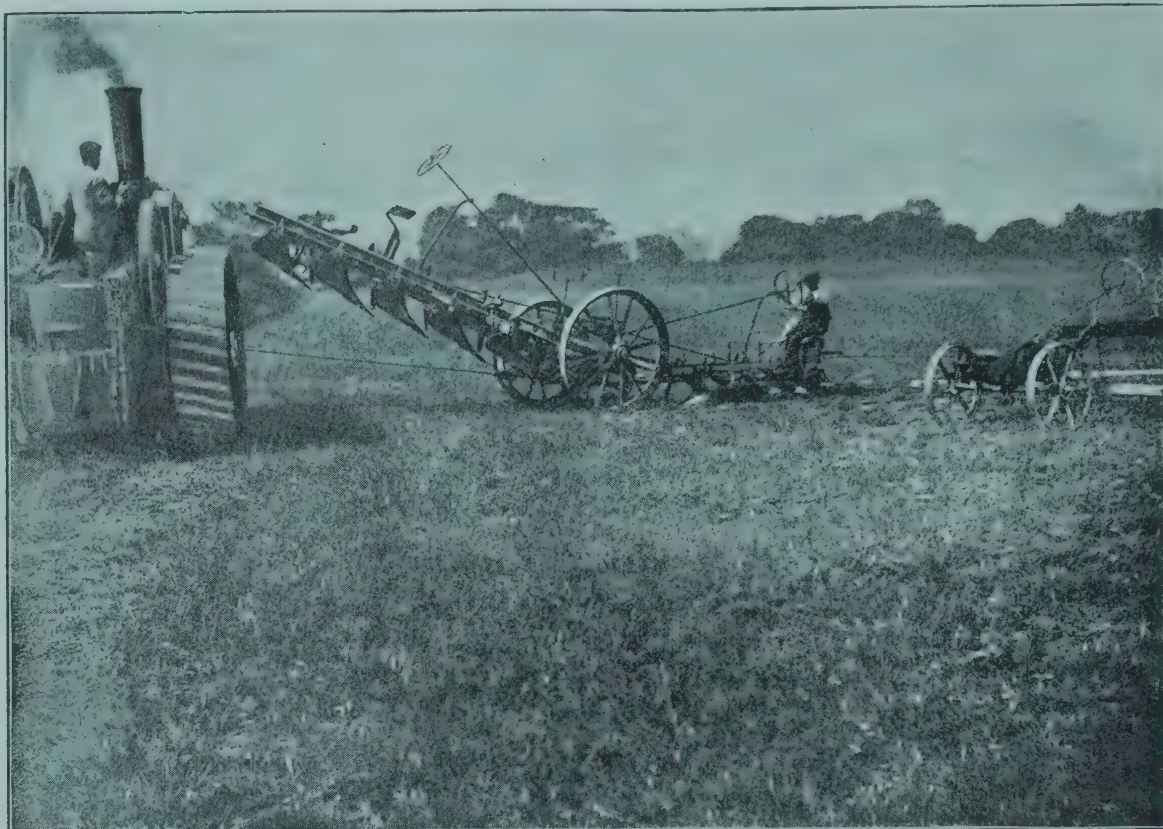
BOOKS.

Twelve Moons.—It was a happy idea of the author of this little book to divide it up into the twelve months of the year, and in an equally happy manner has the subject been dealt with. To all lovers of Nature, and particularly to those who appreciate the beauties of the country, but who must perforce spend the greater part of their

* "Twelve Moons," by Frances A. Bardswell; price 2s. 6d. net. London: Elkin Matthews.

lives in our great cities, we commend this book. For to read it is to live once more among the wild flowers and birds, the rugged winter landscape and the shady copses of summer. A survey of Nature, as she presents her charms to us each month, and that in the choicest and best-chosen phrases of the English language, is what Mrs. Bardswell has given us, and many who read the book will mentally thank her for lifting them, for the time being, at any rate, out of the sordid details of commercial life and strife. Listen to this about February, and refuse, if you can, to imagine yourself anywhere except in the country: "Along the barren tracks we wander, treading the hard, wind-bitten grass. How cheerless look the half-frozen

ponds! Along the edges of the pools, and in the ruts where cart-wheels passed in summer-time, lie borders of unmelted snow. Brittle steel-blue ice-films cover the shallow water-holes, cracking as our feet tread over them." And this is what we find about April, the month of tears and smiles: "And the Primroses! Who would be out of England now that April's rain and sun have scattered milky-ways of Primroses on every bank, in every wood and coppice? So frail their pinky stems, the tiniest hands may gather them; not a thorn is there, not a tough fibre. Some say the Primrose has no scent; just bury your face in a handful of the cool, soft flowers, soft as velvet, cool as a butterfly kiss."



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CULTIVATING THE ROSE LANDS AT BEES' SEALAND BY MEANS OF STEAM PLOUGH AND HARROW.

The tremendous increase in acreage devoted to Bees' Roses had rendered obsolete the usual methods of culture, if quality was to be maintained. But Bees, Ltd., are not satisfied by merely maintaining quality. They search high and low for methods and materials wherewith to **raise and IMPROVE** the quality of rose trees grown on their North Wales Nursery. By using up-to-date methods and modern machinery Bees, Ltd., are able to supply superb rose trees at prices which were undreamed of for roses of quality a few years ago.

DO YOU KNOW WHY

THIS YEAR BEES, LTD., ARE GROWING

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Because they have the demand.
Do you know why there is a demand for 500,000 of Bees' Roses?
Because Bees' Guaranteed Roses ensure certain satisfaction.
Do you know why Bees' Roses are satisfactory?
Because they are tested and guaranteed true to name.
Because they are hardily grown in North Wales.
Because they are splendidly rooted, strong, sturdy trees.
Because they grow and flower wonderfully well as a result of their perfect culture and condition.
Do you know why buyers order roses from Bees?
Because they are completely safeguarded by Bees' guarantee of "Satisfaction or Cash returned in full."
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Because they have found by experience that Bees' Guaranteed Roses ensure certain satisfaction.
Knowing this—you know the reason why.

BEES ARE NOW GROWING FIVE HUNDRED THOUSAND ROSES.
At odd times one comes across the man who hesitates to buy his roses from the big grower because he thinks his order will not receive so much attention as it would from a small grower. That is the sort of man who would wear out three penny worth of shoe leather to save a penny in postage.
There is a very effective answer to this sort of argument. It is this:—
"The big business doesn't grow by neglecting small orders."
This, at any rate, is so obvious, we needn't labour the point further than to insist that—
"Bees' big business is built up of orders large and small executed to the entire satisfaction of the buyers."
We want you to place a trial order with Bees. You are completely safeguarded by Bees' guarantee to refund your money in full if you are not completely satisfied.

BEES' 5s. TEST COLLECTION. Carriage Paid for 6s.

Anyone who hasn't gone in for roses to any great extent cannot do better than buy this lot. The varieties are grown by Bees, Ltd., and will do well near towns.

Alfred Columb, red	6d	Madame Ravary, orange	8d
Caroline Testout, satin pink	6d	Mildred Grant, creamy white	9d
Catherine Mermet, pale flesh	6d	Paul Meyron, silvery rose	6d
F. K. Druschki, sunny white	6d	Victor Hugo, crimson	6d
Gustave Grunerwald, carmine	9d	Lady Ashtown, pale "Rose de Barri"	8d
Mme. Abel Chatenay, salmon	6d	Mrs. J. Laing, soft pink	6d

The price of this collection at the ordinary price quoted in Bees' Catalogue would be 6/8, but they would probably cost you 10/- elsewhere.

Bees, Ltd., will send you the 12 strong trees carriage paid for 6/-.

Terms cash with order.

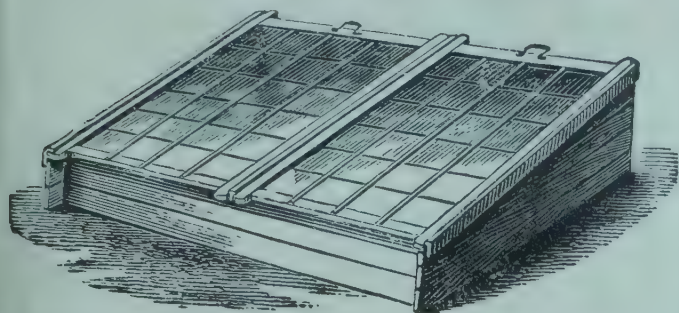
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OUR WELL-KNOWN MAKE.



These Frames are made of the best materials and can be put together and taken apart in a few minutes by anyone.

Sizes and Prices. Glazed and Painted.		£ s. d.		
1	light frame 4 ft. by 6 ft.	2	0	0
2	" 8 ft. by 6 ft.	3	0	0
3	" 12 ft. by 6 ft.	4	2	6
4	" 16 ft. by 6 ft.	5	5	0
5	" 20 ft. by 6 ft.	6	7	6
6	" 24 ft. by 6 ft.	7	10	0

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EVEN TEMPERATURE.
NO TROUBLE.**

Guaranteed
Minimum Burning
**12 HOURS
AT FULL HEAT**

"12 Hours."

"BOTANIC."

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12 HOURS STOVE SYNDICATE LTD.

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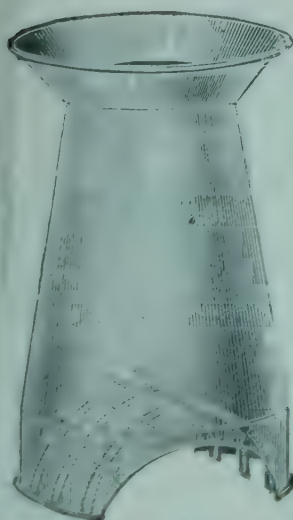
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Creosoted Trellis, Fencing,
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Little or much, you can have it good and cheap.

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HILL'S GALVANISED IRON RUBBISH DESTRUCTOR

(REGISTERED.)

FOR BURNING UP ALL
GARDEN REFUSE AND
RUBBISH, WET OR DRY.

Feed at top, all kinds of Rubbish
quickly reduced to Ashes, than
which there is nothing better as
a Garden Fertiliser.

Outside Measurement at Base, 24ins.
Height 41ins. Weight 37lbs.

Price 15/- each, Carriage Paid

Francis Hill, Belmont Row, Birmingham.

OR FROM SOLE AGENTS—

ROBERT SYDENHAM LIMITED,

99, TENBY STREET, BIRMINGHAM.

Ornamental Garden Ironwork

WELL designed Arches and Screens make a wonderful difference to the appearance of a garden. Roses, Sweet Peas, and all Creepers, can be trained upon them to give splendid effects. Now is the time to fix them, and you may be sure of getting the right article from Boulton & Paul, Ltd. Artistic, Tasteful, and Neat Designs, and all work of superior quality.

Catalogue No. 153a shows many examples of Arches, Screens, Bowers, Fergolas, etc. Sent post free on request.

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"Country Life" for November 2 contains, among other articles, an illustrated account of "Châteaux of France: The Fortress and Castle of Carcassonne," by Theodore Andrea Cook; "Tale of Country Life: The Painter and the Winds," by Lady Margaret Sackville; "Lord Annesley's Trip in East Africa.—II." (illustrated); "A Voice in the Wilderness" (illustrated), by Algernon Blackwood; "Wild Country Life" (illustrated), by Seton Gordon; "Algonquin Songs and Legends" (illustrated), by Algernon Blackwood.

TRADE NOTES.

A NEW GARDEN LABEL.

WE bring the attention of readers to a new and inexpensive label known as The Swanick, to be obtained from Mr. William Trevor, 42, King's Road, St. Leonards-on-Sea. The label is composed of a galvanised holder, which is imperishable in the ground, and a wooden label that slips on from the bottom of the holder, and is so held that it cannot get lost.

"HOW SHALL I HEAT MY GREENHOUSE?"

To those who own a greenhouse this question is an exceedingly important one at this season, and it appropriately forms the title to a most interesting and instructive booklet that Messrs. C. P. Kinnell and Co., Limited, 65 and 65A, Southwark Street, London, S.E., are now distributing free. Messrs. Kinnell have for many years been recognised authorities on the subject of greenhouse heating, and their inexpensive but thoroughly efficient "Horseshoe" boiler is too well known to need comment from us. The booklet in question, with its numerous yet simple diagrams, will tell the amateur all he needs to know about heating his greenhouse, and we strongly advise all readers who are interested in the subject to write to the firm for a free copy.

CATALOGUES RECEIVED.

Mr. George Prince, Longworth, Berks: Roses.
Messrs. James Veitch and Sons, Limited, Chelsea: Roses, Carnations, also New Hardy Plants from China.
Messrs. S. Bide and Sons, Limited, Alma Nursery, Farnham: Sweet Peas.
Messrs. G. Gibson and Co., Leeming Bar, Bedale, Yorks: Roses, Fruit Trees and Herbaceous Plants.
Mr. F. C. Heinemann, Erfurt, Germany: Novelties for 1913.
Messrs. George Cooling and Sons, Bath: Roses and Fruit Trees.

Messrs. H. Cannell and Sons, Swanley, Kent: Autumn Guide.

Mr. Charles Turner, Slough: Roses.

Messrs. Bees, Limited, Liverpool: Roses.

The Wargrave Plant Farm, Limited, 10, The Arcade, Liverpool Street, London, E.C.: Descriptive Catalogue of Bulbs, Roses, Carnations, Climbing Plants and Fruit Trees.

Mr. Charles Turner, Slough: Bulbs.

Mr. Douglas Leigh, Hampton-in-Arden: Bulbs.

Messrs. William Smith and Son, Aberdeen: Bulbs.

Messrs. W. Drummond and Sons, Limited, Dublin: Flower Bulbs.

Messrs. Hallams, Moseley, Birmingham: Carnations and Picotees.

Messrs. Kent and Brydon, Darlington: Bulbs and Forcing Plants, also Roses and Fruit Trees.

Messrs. Frank Dicks and Co., Manchester: Bulbs and Roses.

Royal Eiland Nursery Company (Department C), Hillegom, Holland: Bulbs.

Messrs. Ant. Roozen and Son, Overveen, near Haarlem, Holland: Bulbs. All communications should be addressed to the general agents for Great Britain—

Messrs. Mertens and Co., 3, Cross Lane, London, E.C.

The Dutch Bulb Supply Company, Eastern Counties Chambers, Ipswich: Bulbs.

Mr. D. McOmish, Crieft, N.B.: General Nursery Catalogue.

Mr. C. W. Breamore, Winchester: Bulbs and Sweet Peas.

Messrs. William Watson and Sons, Limited, Clontarf Nurseries, Dublin: Carnations.

Messrs. Samsons, Kilmarnock: Bulbs and Flower Roots.

Messrs. John K. King and Sons, Coggeshall: Bulbs.

PUBLICATIONS RECEIVED.

"Farm and Estate Book-keeping" (second edition), by Herbert Taylor and John Peet, B.Sc.; price 4s. net. Arthur Fieldhouse, Huddersfield.

"Chrysanthemums," by Thomas Stevenson; price 1s. 6d. net. T. C. and E. C. Jack, London and Edinburgh.

"Royal Gardens," by Cyril Ward; price 16s. net. Longmans, Green and Co., London.

"Japanese Gardens," by Mrs. Basil Taylor; price 21s. net. Methuen and Co., London.

"Silviculture in the Tropics," by A. F. Brown. Published by Macmillan and Co., Limited, St. Martin's Street, London; price 8s. 6d. net.

"Indoor Gardening in Room and Greenhouse," by H. H. Thomas. Published by Cassell and Co., Limited, London; price 1s. net.

"British Violets: A Monograph," by E. S. Gregory. Published by W. Heffer and Sons, Limited, Cambridge; price 6s. net.

** The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign 8s., 9d.

We are retaining this column week by week to take our readers on "flying visits" to new Exhibition Warehouses and Test Grounds at Raynes Park, S.W., which always open to the public.—James Carter & Co. The King's Seedsmen.

2.—FIVE MINUTES WITH THE BULBS

Bulbs by the Billion.

Bulbs representing practically every hardy flowering variety that exists.

Sent out from Raynes Park by the single bulb by tens of thousands.

Last year's order for bulbs for the various Palaces and Gardens of His Majesty the King, the Royal Parks and the L.C.C. Gardens amounted to 66,000 Tulips, 171,000 Narcissus bulbs, 170,000 Tulips and 116,000 Crocuses.

Only by paying a visit to Raynes Park can one gain any idea of the fascination of bulb cultivation. Innumerable little stories might be told as wonderful as that of the Lily of the Valley bulbs, which spend from six to nine months in the freezing chamber and are brought out in solid lumps of ice, to spring into the purest of blooms within three or four weeks.

Here, at Raynes Park, one may purchase a bulb for a five-pound-note, or a thousand for a guinea, and every bulb carries an insurance policy in the actual trials to be seen at our Trial Grounds in the spring.

We recently paid £76 for 20 Narcissus bulbs. The world-renowned King Alfred Daffodil, the bulbs of which are now marketed at 2/- each, was sold in the first year at several guineas each.

Like most other things, bulbs may be had at low prices; but only good bulbs from a house of prestige repay their cost in the abundant realisation of long months of anticipation. It is no use wishing one had paid a little more when springtime brings disappointments.

Next Week: "Indoor Gardening."

JAMES CARTER & CO.

RICHARD SMITH & CO., ST. JOHN'S WORCESTER

THE WORLD-RENOWNED NURSERYMEN. Established 1804.

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Money returned if not satisfied.

ALL ON APPROVAL

3d. a Lot.

15 Aubrietia græca ... 3d	6 Marguerites ... 3d
12 Aquilegia spurred ... 3d	20 Pansies, fine ... 3d
6 Auricula alpina ... 3d	10 Physalis Francheti ... 3d
3 Anchusa Dropmore ... 3d	1 Passion Flower ... 3d
12 Antirrhinums, dwarf ... 3d	10 Pentstemons, mixed ... 3d
1 Bamboo Tree ... 3d	1 Plumbago ... 3d
20 Brompton Stocks ... 3d	6 Primula obconica ... 3d
20 B. Stocks, red ... 3d	10 Polyanthus, fine ... 3d
6 Begonia Veron. ... 3d	6 Pinks Sinkins ... 3d
20 Canterbury Bells ... 3d	6 Pinks Majesty ... 3d
15 C. Bells, white ... 3d	20 Poppy Iceland ... 3d
15 C. Bells, rose ... 3d	10 Poppy Orientale ... 3d
15 C. Bells, double ... 3d	6 Pyrethrum, hybrids ... 3d
1 C. Rambler ... 3d	1 Rose H.P. ... 3d
10 Carnations, mixed ... 3d	1 Rose Tea ... 3d
6 Cinerarias, grand ... 3d	10 Rudbeckia Newmanii ... 3d
10 Coreopsis grand. ... 3d	3 Rudbeckia maxima ... 3d
6 Chrysanthemum King Edward ... 3d	12 Saponaria, single ... 3d
6 Chelone barbata ... 3d	3 Saponaria, double ... 3d
10 Dianthus, mixed ... 3d	12 Sweet Scabious ... 3d
6 Delphiniums, hybrids ... 3d	6 S. Peas, Everlasting ... 3d
6 Eucalyptus ... 3d	10 Solanums ... 3d
6 Echinopsis ritro. ... 3d	6 Smilax, large ... 3d
4 Eryngium planum ... 3d	25 Sweet Williams ... 3d
6 Erigeron speciosus ... 3d	10 Sunflower, Perennial ... 3d
12 Evening Primrose ... 3d	6 Tradescantia ... 3d
12 Foxgloves ... 3d	3 Thalictrums ... 3d
6 Gaillardia, hybrids ... 3d	6 Veronica spicata ... 3d
6 Geums, double red ... 3d	12 Strawberry plants ... 3d
6 Gypsophila, white ... 3d	30 Wallflowers, mixed ... 3d
12 Heliotrope ... 3d	30 Wallflowers, blood red ... 3d
6 Hollyhocks, double ... 3d	30 Wallflowers, yellow ... 3d
1 Hydrangea ... 3d	15 Wallflowers, double ... 3d
20 Honesty ... 3d	50 Cabbage ... 3d
6 Heuchera, red ... 3d	6 Sage Plants ... 3d
2 Iris germanica ... 3d	6 Thyme Plants ... 3d
1 Japanese Maple ... 3d	6 Fennel ... 3d
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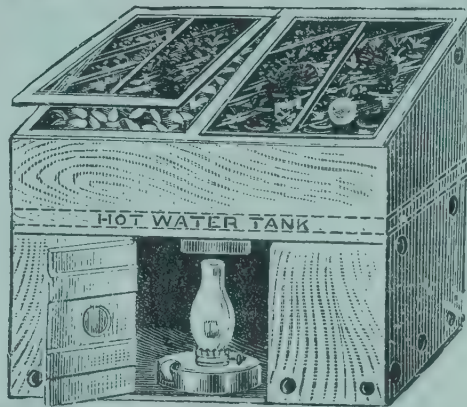
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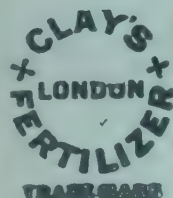
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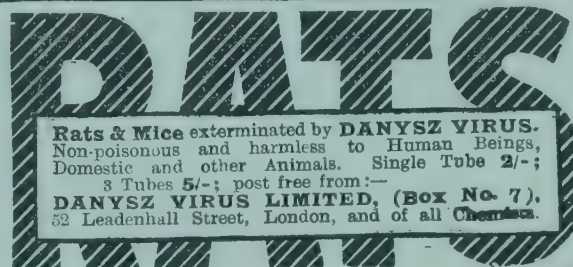
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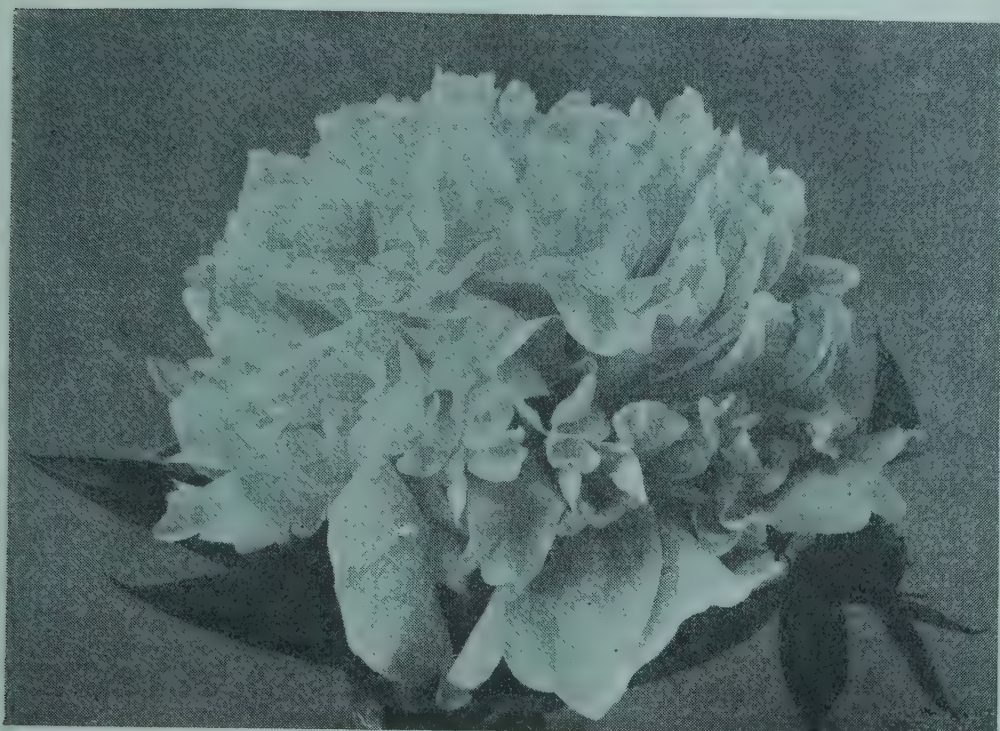
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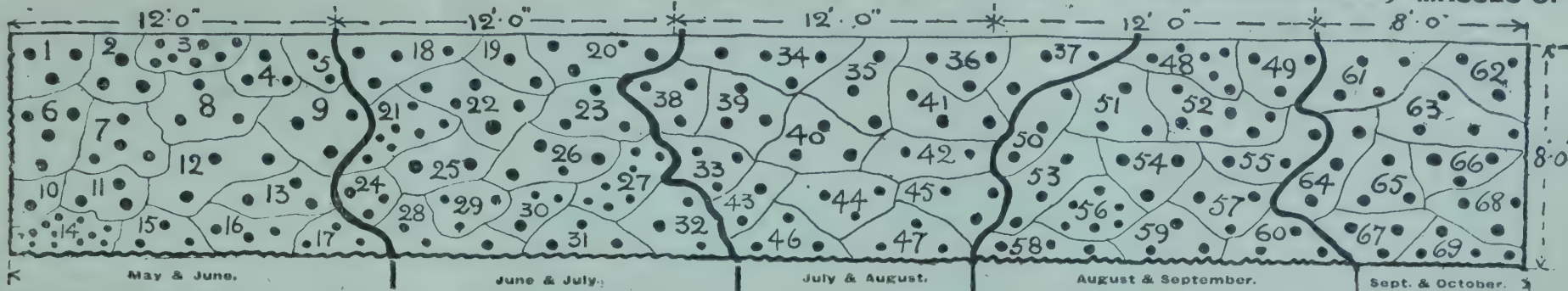
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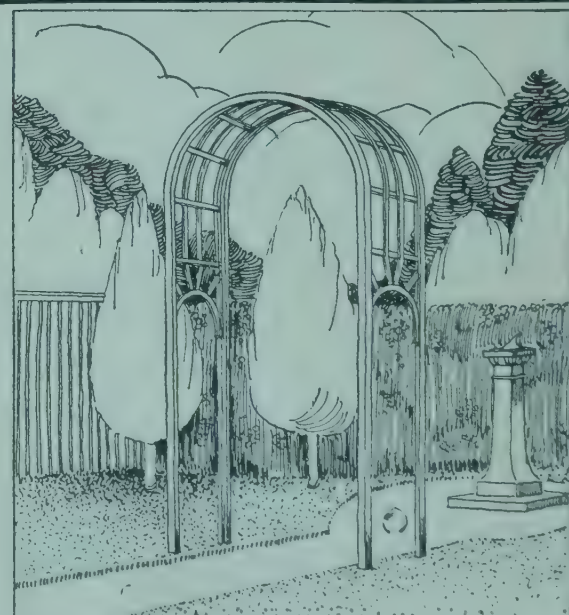
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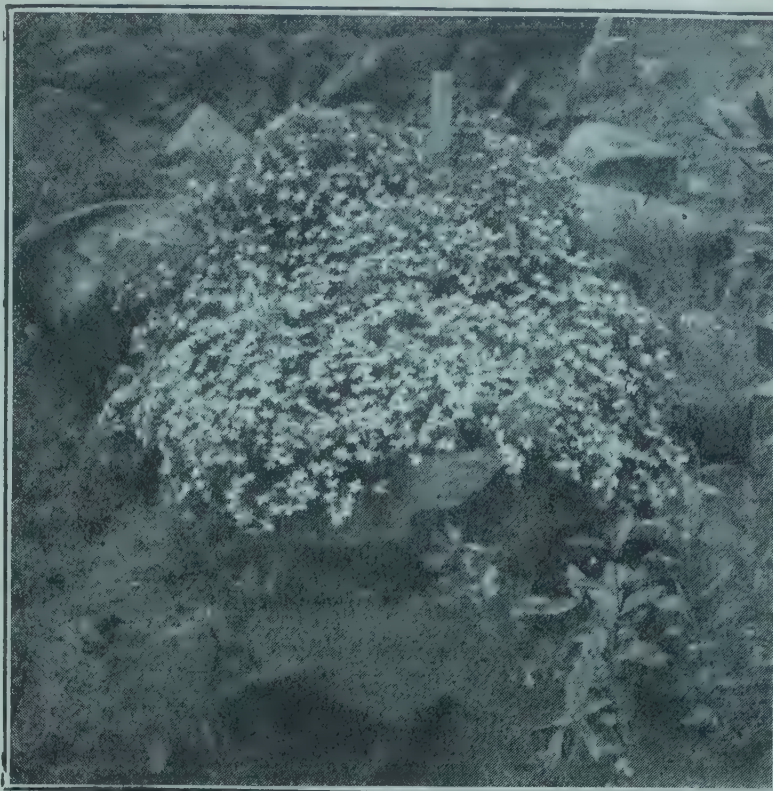
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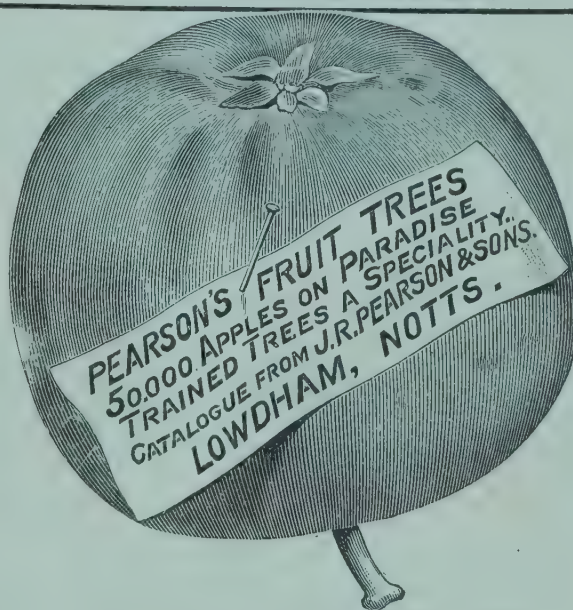
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THE GARDEN.

No. 2138.—VOL. LXXVI.

NOVEMBER 9, 1912.

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EDITORIAL NOTICES.

Every description of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Winter and Summer.—In a Wiltshire garden, within a short distance of each other, the Winter and Summer Jasmines are in full flower, and a Holly tree is glowing with scarlet berries.

A Dwarf-growing Loosestrife.—One hears from various quarters good accounts of Henry's Loosestrife, *Lysimachia Henryi*, which is a novelty now finding its way into a good number of gardens. It seems to be doing well, and is very pleasing with its procumbent stems and its terminal heads of orange yellow flowers. It bloomed for a considerable time this summer, and has been admired by many competent judges.

Record Price for Apples.—At the Kent Commercial Fruit Show held at Maidstone last week, and a review of which appears on page 568, six boxes of Bramley's Seedling Apples sold by auction realised £12. As each box held about three and a-half pecks, this is, of course, more than £2 per bushel. The fruits in question were packed and shown by Mr. G. E. Champion of Mereworth, Kent, and won the Coupe Challenge Cup offered for the best six boxes in the show. Every Apple was brilliantly coloured and perfect of its kind.

Fremont's Crane's-bill.—*Geranium Fremontii*, although not long introduced to gardens, has become a favourite with those who cultivate it. It is about a foot high, and has nice leaves and large purplish flowers of a light shade. This hardy *Geranium* flowers freely and for a long time in succession, and will thrive in any border of common soil. In the large rock garden it is also effective. Like most of the race, it blooms in summer. This Crane's-bill can be raised from seeds, and is also propagated by division of the roots in spring.

City of London Rose Society.—This new society was formed at a meeting held at the Cannon Street Hotel on Wednesday of last week, its objects being to encourage healthy competition among bona-fide City workers who are interested in Roses. Only those who actually work in the City of London itself, or who have offices situated therein, will be eligible for membership. The annual subscription will be 5s., and it is hoped that the Lord Mayor will kindly consent to act as president. The secretary is Mr. A. E. Protheroe, 67 and 68, Cheapside, E.C., and all applications for membership should be sent to him.

Verbascum Miss Willmott.—Miss Willmott's Mullein is a handsome garden plant, and the raisers are to be congratulated on having obtained permission to give it the name of a lady so devoted to gardening. It is not unworthy of the name, being one of the finest of all hardy summer-flowering perennials with white flowers. From its rosettes of big green leaves it sends up a towering spike

some five feet or six feet high, and produces in great numbers handsome white flowers some two and a-half inches across. It is truly a stately subject, and of grand effect in the border. Unlike many of our finest Mulleins, it is a perennial, and will remain in good health for a long time.

Late Roses.—On Sunday, the 3rd inst., we gathered in an Essex garden some excellent flowers of the following Roses: Richmond, Margaret, James Coey, Margaret Moynaux, Mrs. Alfred Tate, Gloire de Dijon and the Old Blush China or Monthly Rose. On the mornings of the 1st and 2nd inst. 7° and 9° of frost had been registered, but the Roses appeared none the worse.

A Fertile Form of Adiantum farleyense.—The magnificent stove Fern, *Adiantum farleyense*, must no longer be regarded as sterile, for its variety Gloire Van Moordrecht, introduced last year, has proved itself capable of producing fertile spores. Already the large Fern-growers of this country have succeeded in raising many thousands of young plants from spores. *A. farleyense* is a native of Barbados. It was introduced to this country in 1865, and has long been regarded as a barren form of *A. tenerum*.

Hornbeam Fruiting Well.—*Carpinus Betulus*, or the common Hornbeam, is a well-known deciduous tree, native of Britain. It forms a good hedge plant and withstands pruning well, while the leaves remain on after they are dead, thus affording good shelter. The dry fruits or seeds ripen at this season, and are now being well distributed by the wind. From almost every county come reports of the enormous quantity of seed produced this year. It is probably the greatest within human memory.

A Beautiful Birch.—In 1888 the late Mr. J. H. Veitch succeeded in introducing seeds of *Betula Maximowiczii*, a Japanese species, to England, and about five years later seeds or young plants were sent to Kew by Professor Sargent, Director of the Arnold Arboretum. It does not appear to have been introduced in quantity, however, judging from its rarity. In noticing it in the "Forest Flora of Japan," Professor Sargent refers to it as "certainly one of the most distinct and beautiful of all Birches, growing 80 feet to 90 feet high with a trunk 2 feet to 3 feet in diameter, with pale, smooth, orange-coloured bark." Its behaviour in this country up to the present indicates that the above remarks are applicable to it here, for its great vigour, handsome bark and large leaves make it the most conspicuous of the several species. The broadly-ovate leaves are 3 inches to 6 inches long, without reckoning the stalk, and are 2½ inches to 3½ inches wide. About May the male catkins, which are 3 inches to 4½ inches long, are showy, while in late summer the fruiting catkins, which are up to 4 inches long, are equally conspicuous.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Best Pears and Their Cultivation.—On pages 543-44 Mr. Bunyard has some valuable notes on Pears. I was most interested in his reference to varieties, and especially to Conference, Durondeau, Marie Louise, Emile d'Heyst and Doyenné du Comice. The last-named makes a grand wall specimen trained fan-shaped. Emile d'Heyst does well on a wall and also as a bush. It is not attractive in appearance like Durondeau, but its flavour is not surpassed by many other varieties, and amateurs with small gardens should be sure that it is added to their collection. Durondeau is a grand variety for growing as a cordon, and in this form produces some of the handsomest fruits among Pears. Marie Louise is generally grown on a warm wall, but it will succeed as a pyramid or bush.—B.

A Beautiful Autumn Border.—The illustration of the border of Michaelmas Daisies at Aldenham House, Elstree, which appeared on page 543 of the issue of October 26, is one of the best of these useful autumn-flowering plants I have ever seen. For many years past I have wondered why so many persons plant their Michaelmas Daisies in unattractive ways—isolated plants in odd corners, tied up like sheaves of corn. The plants shown in the illustration referred to look so charming that no doubt many readers will be induced to rearrange their plants and purchase more this autumn. The Michaelmas Daisy flowers at a season when outdoor blossoms are becoming scarce, and on this account alone it is well worth growing. Mr. Beckett, has, I believe, raised some very beautiful varieties.—AVON.

Polyantha Rose Ena Teschendorf.—Allusion is made to Jessie as a free-flowering form of Dwarf Polyantha on page 525, issue October 19, and although granting that Jessie is exceptionally free and desirable as a dwarf Rose, it is likely to be ousted from its popularity by Ena Teschendorf, a newer variety in the same section. The newcomer was sent out in 1911 by Teschendorf, and is a sport from Mme. N. Levavasseur. The flowers are a deep carmine red colour, quite like Grüss an Teplitz. It has the advantage of not losing its colour even in the hottest sun. In colour it is deep carmine red.—E. M. [We have not seen the variety Ena Teschendorf, but the great advantage of Jessie over others of its type is that its colour does not fade in brilliant sunshine.—ED.]

Tobacco Plants and Earwigs.—In "Notes of the Week," issue October 26, a very interesting reference is made to amateurs and others refraining from growing Dahlias on account of trouble from earwigs. I have never heard that the Tobacco Plant will keep away these pests, but pennyroyal is supposed to drive them away from cupboards, rooms and greenhouses. I have tried this remedy—which is rather expensive—and found it efficacious. The liquid should be put on pieces of cotton-wool and laid near the things that are to be protected, though not on any foliage. Perhaps a few pieces of the wool saturated with the oil and placed near the stems of the Dahlias would keep the earwigs away.—G. G.

— I noticed in your issue for October 26, page 537, a suggestion that planting Tobacco Plants among Dahlias might keep off earwigs. As a matter of fact, I do not find that I am much troubled with earwigs among the Dahlias.

This year there has been quite a plague of earwigs, but I have found very few among the Dahlias. On the other hand, three plants of *Cobæa scandens* have been utterly ruined by them, the leaves and buds being absolutely destroyed, so that I have not had a single flower. In front of one of these *Cobæas*, in touch with it, are a number of Tobacco Plants (the ordinary flowering variety). This plant has suffered the worst of all, so the Tobacco Plants do not appear to be of any use in keeping off earwigs.—(Colonel) G. H. TILLARD.

The Deciduous Cypress Fruiting.—Although the Deciduous Cypress is a well-known tree in the British Isles; its cones are known to comparatively few, for it bears them shyly in this country. Even in the Duke of Northumberland's garden at Syon



A CONE-BEARING SHOOT OF THE DECIDUOUS CYPRESS. THIS TREE SELDOM FRUITS IN ENGLAND.

House, where so many fine and rare trees are to be found and the Deciduous Cypress is remarkably well developed and represented by many specimens, cones have not been noticed before the present year. Now an example, and curiously not one of the older trees, is bearing some hundreds of cones, while a few may be noted here and there about other trees. A few cones are also noticeable on the old trees at Whitton, while they have been reported from a few other localities. *Taxodium distichum*, the Deciduous Cypress, is a native of the Southern United States, where it grows over large expanses of swampy ground. It is peculiar by reason of the curious woody knees, which are produced from roots that are in the vicinity of water. These rise to a height of 2 feet or more, and are well developed about some of the Syon House trees. The tree is also able to live and grow, year in, year out, when the trunk is surrounded by water, a character not noticeable in many trees. In America the wood is in demand for many purposes, and is of great value for the manufacture of water tanks, on account of its great lasting qualities when wet. The tree is an ornamental one, its graceful foliage being a pleasing shade of pale green in spring and summer, and turning to deep crimson-brown in autumn. The illustration was prepared from a shoot collected at Syon House.—W. D.

Lilium Brownii.—The statement on page 553 that the varieties of *Lilium Brownii* are scarce in cultivation needs in one instance to be qualified, for *Colchesteri* is sent here from Japan in considerable numbers during the winter season; indeed, the *Brownii* of the Japanese is this particular variety. Taken altogether, *L. Brownii* is a most puzzling Lily, all that is known of its early history being that it was distributed by a nurseryman named Brown in the first half of the last century. Since then it has been cultivated by the Dutch, and, despite the assertion so often made that *L. Brownii* is a native of China, the fact remains that the form long grown in Europe is quite distinct from any that we have had sent from China within recent years. Whether the change has resulted from an extensive period of cultivation I cannot say, for I have known the Dutch *L. Brownii* for the last forty years, and it has not varied one whit in that time. There is no doubt that the European and Chinese kinds are but forms of one Lily, but on the score of priority the specific name of *Brownii* must belong to that grown by the Dutch. A perusal of the "Kew Hand List" tends to confuse rather than elucidate the situation, as there *Colchesteri* is separated from the other forms of *L. Brownii* and is regarded as a variety of *L. japonicum*.—H. P.

Iris Snow Queen.—It would be interesting to know whether the writer of the note on *Iris Snow Queen* on the first page of the issue of *THE GARDEN* for November 2 has any evidence for his belief that the plant is a hybrid. I should like to put forward the view that this fine *Iris* is merely the albino form of the *Iris orientalis* of Thunberg, which is probably a good species and entirely distinct from *I. sibirica*. It is possible that the two plants merely represent different combinations of pairs of Mendelian characters, but this possibility has still to be proved. All that appears to be proved at present is that *I. sibirica* has tall stems, raising the flowers well above the foliage, and produces heads containing three, four or five flowers on pedicels of increasing length. The capsules are short, broad and bulging, and contain large, flat seeds. *I. orientalis*, on the other hand, has leaves which, if held erect, are as long as, if not longer than, the stems, of which the terminal head rarely contains more than two flowers on comparatively short pedicels. The capsules are long and narrow, triangular in section, and contain small, thick, almost cubical seeds. As regards the actual flowers, those of *I. sibirica* are distinctly smaller than those of *I. orientalis*, and, moreover, the almost orbicular fall-blades of the latter are extended nearly horizontally, while those of *I. sibirica* hang perpendicularly. Of both these *Irises* albino forms occur, among which there are individual differences both in vigour and in floriferousness. *Snow Queen*, the albino form of *I. orientalis*, breeds true to the white colour, and is a recessive for the colour factor. If the type and the albino form be cross-fertilised, some very beautiful forms of a bright sky-blue colour can be obtained, of a shade that I have not seen elsewhere among *Irises*. It is not quite certain how the name of *I. sibirica* came to be applied to a plant which seems to be confined to Central Europe and Russia west of the Urals, but the evidence of herbarium specimens seems to prove that *I. sibirica* does not extend east of this line, and that *I. orientalis* is not found west of the neighbourhood of Nertsinsk in Manchuria, whence it extends through Korea into Japan.—W. R. DYKES, *Charterhouse, Godalming*.

Cattleya Maggie Raphael.—As a winter-flowering Cattleya this is a great acquisition, being obtained from *C. aurea* and *C. Trianae*. It combines the good qualities of both these fine species, and in instances where *C. Trianae alba* has been employed as a parent the result is even more pleasing. In this case the sepals and petals are white, while the lip is purplish, with distinct golden yellow markings in the throat, which are inherited from *C. aurea*. Whenever Cattleya flowers are required, this hybrid should certainly be added to the collection.—S.

Narcissus minimus for the Rock Garden.—Judging from the exclamations of delight with which my friends greet this little Daffodil when they visit my garden, it is to a very large number of gardens not so much known as its dainty minuteness deserves. While it is common knowledge that there is a class of dwarf Narcissus suitable for rock gardens, few who have not actually seen it realise how dwarf this species really is. Thinking to bring this home to my friends who are not able to see the little flowers themselves, I took the accompanying photograph. Everyone knows the large yellow trumpet Daffodil Emperor; by cutting a flower of this and inserting it near a colony of the wee Narcissus minimus, a comparison of their real size is disclosed, which is much more telling than a long wordy account of them. Not only is *N. minimus* small, but it is perfect in every detail, closely resembling Emperor in form. No rock gardener who does not already possess them should miss the opportunity of obtaining and planting now one or two groups of these sweet little flowers, selecting any spot in the rock garden open to the sunlight for them. No special treatment appears necessary beyond working in some leaf-soil and sand about the spot they are to occupy in the already well-drained rockery.—REGINALD A. MALBY.

FORTHCOMING EVENTS.

November 11.—National Chrysanthemum Society's Floral Committee Meeting.

November 12.—Chrysanthemum Shows at Belfast (two days) and Plymouth (two days).

November 13.—East Anglian Horticultural Club's Meeting.

Chrysanthemum Shows at Brixton, Colchester, Lancaster, King's Lynn (two days), Buxton, Bristol (two days), Barry (two days); and of the Liverpool Horticultural Association (two days).

November 14.—Chrysanthemum Shows at Romford, Hitchin, Barnsley (two days), Sheffield (three days), Edinburgh (three days), Newport (Mon.), Bridgwater, Aberdare, Cardiff; and of the Scottish Horticultural Association (three days).

November 15.—Chrysanthemum Shows at Macclesfield (two days), Blackburn (two days), Huddersfield (two days), Bolton (two days), Bradford (two days), Kilmarnock, Stockport (two days); and of the Leeds Paxton Society (two days)

ROCK AND WATER GARDEN.

ROCK GARDENS IN THE MAKING.

(Continued from page 556.)

Rocks, Natural and Artificial.—The question of suitable and unsuitable rocks in the making of a rock garden is, naturally, of some importance, and much depends on a good, or, shall I say, a right selection. For present purposes, however, those named above, the "natural and artificial," merit careful attention. For the moment, too, one might dismiss the latter and concentrate attention upon the former. Natural rocks, it should be stated at the outset, are of two kinds, the suitable

The Great Oolite from the same range of hills is, on the other hand, good in colour, in the size and variability of the available blocks, in its stratified character, and sympathetic and nourishing withal. Naturally, limestones are exceedingly variable, and those of Derbyshire and Yorkshire not only differ from each other, but materially so from those of other localities. In the main, however, limestones may be cited as the most serviceable and important of all stratified natural rocks, and because of their boldness or picturesqueness are pleasing to the eye and do not, for any lengthened period at least, detract from the plants themselves; that is to say, they are quickly brought into submission, and, weathering down by exposure and climatic influences, soon lose their one defect of quarried newness, should this exist. That it may not exist is proved by the frequent presence of "weathered limestone," which, assuming a dull grey tone, is a charm indeed.

Another type of limestone is the Purbeck, found in the neighbourhood of Swanage. In its selected form it is ideally beautiful and picturesque, admirably suited to vegetable-life, available in large or small blocks, and, presently toning to a marl brown, is difficult to surpass. In point of colour—and colour is not to be ignored—this and the great oolite of the Cotswolds appeal to me before all the other limestones. Both, too, are of the greatest value when used in conjunction with water in the rock garden. Thus it will be seen that this most important of rocks is available North and South, and in many other directions also; hence rock garden builders should take note.

Sandstones.—These come next in importance to the limestones, and, like them, are of a greatly varied class—good, bad and indifferent. In Surrey and Kent, Worcester and Cheshire, Warwick and Sussex and other parts, examples of this rock occur, now of wall-like massiveness, or, anon, shaly and thin and of no value to the rock garden builder. Occasionally, however, these thin slabs of rock—probably for the sake of cheapness alone—are employed, and, upended as they most usually are, constitute a good object-lesson of what not to do in rock garden building. Slabs of this rock 3 feet



NARCISSUS MINIMUS, WITH A FLOWER OF EMPEROR FOR COMPARISON OF SIZE.

and unsuitable, *i.e.*, the sympathetic and nourishing, or the reverse. Quite naturally, too, it is the sympathetic and nourishing which we require, and into this category fall the majority of limestones and sandstones. One uses the word "majority" studiously, inasmuch as certain classes of rock—the inferior oolite of the Cotswolds, for example—crumble quickly under the influence of frost and exposure; hence a rock garden of such material would soon be crumbling to decay, with, possibly, serious results. The magnesian limestone of the same district is also unsuitable, its glaring whiteness—approximately that of chalk—being much against its use.

or 4 feet across are sometimes seen; but, save as stepping-stones in the water garden or as pathways in the rock garden itself, there is little use for them. Most usually—almost invariably—sandstone may be regarded as of a sympathetic nature to vegetable-life, to which the built sandstone walls of Cheshire and the unquarried rocks of many parts bear ample testimony. Ferns, Mosses and other plants appear to take most kindly to it, and the fact is of untold value to the gardener. Rugged, too, or picturesque in some instances, and porous and moisture-absorbing to a degree, it is greatly to be desired for the purpose one has in mind.

For rock building, however, I should place the red sandstone first, that of the old red sandstone formation more particularly, by reason of its rich warm colour, which contrasts so effectively with plant-life. Its porosity and coolness are of value, and its more exposed parts are soon moulded by wind and storm. Some of the Sussex sandstones are good and effective, others are perhaps a little formal, and, unless intelligently handled, present that appearance in the garden. Some types of sandstone, like those of the other great formation first referred to, are quickly rent by frost; hence care is necessary in the selection of them, if not even some sort of guarantee of their durability in this respect. Apart from the rocks already mentioned as suitable, there are others known as tufa and millstone grit. Both are excellent for plant growth, and in good hands are capable of affording effective results. On the question of expense, the first-named for outdoor work may at once be dismissed. It is perhaps less good and less nourishing than some of the limestones, though of a highly decorative class.

Highly-fossilised rocks, such as those of the gryphæa and ostrea, of the oolite marl of the Cotswolds, and others which in Nature have become crystallised by contact with igneous rocks in the molten state, I regard as unsuitable for rock gardening in general.

Perhaps the least suitable of all natural rocks for the purpose in view is granite, primarily because of its impervious and unsympathetic nature. E. H. JENKINS.

(To be continued.)

TREES & SHRUBS.

EVERGREEN RHODODENDRONS.

IN gardens large and small, where the soil is deficient in lime, Rhododendrons are the best flowering evergreens to plant. The transplanting may take place at almost any season, although autumn and spring are unquestionably the best times.

A small collection of Rhododendrons might include the following named sorts: Pink Pearl, Gomer Waterer, Mrs. E. C. Stirling, Mrs. Tom Agnew, Lady Grey Egerton, Alice, Lord Palmerston (Cynthia), Doncaster, Lady Clementina Mitford, Mrs. Holford, Snowflake and John Waterer. The named varieties are so numerous, however, at the present day that, were a request sent to ten of the leading Rhododendron-growers for a list of the twelve best sorts, fifty names at least would probably be given. In addition also to named sorts, raisers of seedling Rhododendrons in quantity have usually a stock of plants for disposal which, though not quite up to the standard to introduce as new named varieties, are too good to destroy

SHRUBS FOR TERRACES.

THE practice obtains in some gardens of cultivating plants of various descriptions in tubs for use on terraces during the summer and autumn months, and as a number of enquiries have been made of late respecting plants which are suitable for the purpose, some suggestions are appended as a guide for those who wish to take up this method of plant culture.

It is, as a rule, necessary that some fairly light structure should be available for the winter storage of the plants. This was met in the time of our forefathers by a building called an orangery. It was a rather heavily-built structure, with a slate roof, a blank wall at the back and front, and sides

go for several months without water. When water is given, however, it must be in sufficiently large volume to thoroughly soak the ball of soil and roots.

The common Bay, *Laurus nobilis*, is popular for terraces, grown either as a pyramid or a standard, but it is overdone, and there are other plants which might very well be substituted for it. A return to the old habit of growing standard Oranges for the purpose is to be commended, for when plants such as those at Mount Edgumbe and Margam are seen they command great respect. Unfortunately, the more easily-grown Bay has to a great extent supplanted the Orange. The common Myrtle, *Myrtus communis*, is another shrub which might be widely grown, for its fragrant

leaves make it popular, while its white blossoms and black or deep purple fruits are very showy. The small-leaved variety, *tarentina*, is also an acquisition. Care must be taken to let the Myrtles develop freely, for they are not nearly so attractive when clipped hard, as is often done with the Bay. *M. Ugni* is another showy kind. *Clethra arborea*, the Lily of the Valley Tree of Madeira, is another excellent plant. It will grow quite 15 feet high, and is showy alike by reason of its dark green leaves and white flowers. Several well-grown and well-flowered plants were seen growing in tubs at Hampton Court a short time ago. *Acacia armata*, although usually considered purely as a greenhouse plant, may be used quite well as a terrace plant during summer, for it may be grown into a handsome specimen at least 10 feet high. The Pomegranates, *Punica granatum* and its variety *nana*, are well grown in some gardens, and when covered with scarlet flowers they are very handsome. Although more often included as a border plant, *Choisya ternata* is quite a good shrub for tub culture, its foliage and flowers alike being ornamental. Fuchsias may be used with effect, as also may large plants of *Hydrangea hortensis*.

Agaves are familiar objects in many gardens, although they must be used with caution in places where children are in the habit of running about, for the ferocious

spines which arm the leaves are a source of danger. In sunny gardens the Oleander, *Nerium Oleander*, may be used with effect, although it rarely gives such good results in this country as are usual in Southern Europe. Conifers, as a rule, are not to be recommended for this class of work, but a great deal may be done with Camellias. When small plants are required, the Tree Ivies come in excellently, while some people form screens of trailing kinds to block out undesirable objects. Many other plants, such as *Escallonia macrantha*, *Elæagnus* species, *Umbellularia californica*, &c., will suggest themselves, but enough has been written to direct attention to some of the best.

D.



A SEEDLING RHODODENDRON AT ITS BEST.

fitted with large windows, which reached from the top of the building to the floor. Between the windows rather wide stone or brick pillars were arranged. The building was unheated, save sometimes by a fireplace. As modern requirements go, such a structure would not be considered an ideal one for plants, but it served its purpose well, and there are gardens in the country where such an orangery is still put to its original use.

The essential points to observe throughout winter are that the plants must be very carefully watered and that fresh air must be admitted at all times. In the event of the soil being fairly moist when the plants are housed, they will usually

THE FLOWER GARDEN.

SWEET PEA NOTES.

A Histon List.—Histon in Cambridgeshire has long been celebrated for the splendid crops of various kinds which excellent culture on good land has produced; but it has come into immensely greater prominence in recent years because it is the home and headquarters of Mr. W. J. Unwin, one of the cleverest of modern Sweet Pea specialists. He made his name with Gladys Unwin, which quickly became the most popular of all Sweet Peas for market culture, and in the seasons which have intervened since its introduction Mr. Unwin has not failed to give us novelties, and almost invariably they have been conspicuous for many good points and the fact that the proportion of trueness was always exceptionally high, this latter fact being attributable to the extreme care that is exercised with the Histon stocks.

In this present season Mr. Unwin is offering four novelties of his own raising. Mrs. D. Denholm Fraser may be most accurately described as an Earl Spencer Mrs. W. J. Unwin, which will suffice to mark it as a variety that must be grown by those who are partial to the refined flakes of these days. Muriel Quick has a white ground with light blue veins; the size and form are alike excellent. Victor Unwin is a deep chocolate that seems to be quite distinct from any other variety of the Spencer group. The Abbott was not raised by Mr. Unwin, but by Mr. W. Lumley, of Constance Oliver fame. It is peculiar in colour, though all of us would not regard it as strikingly attractive. The ground is very light grey, with suffusions and venations of grey-brown or brown. It would certainly be distinct in a stand of exhibition flowers, for which it possesses the necessary size and form. Dora Hopley is identical in colour with Mrs. D. Denholm Fraser, but it belongs to the smooth or grandiflora group. Mr. Unwin also offers several novelties of other firms' raising, as well as all the leading standard varieties. I must put in a brief word for Eric Harvey. It has not attained to the popularity to which its conspicuous beauty indisputably entitles it, and this is, perhaps, due to the fact that it thrives magnificently in some soils and districts, but fails to do itself anything approaching to justice in other places. It ought to be tried, and, if it fails, then it must go; if it succeeds, the grower will not require any inducement or persuasion to grow it again. At one of the August shows of the Royal Horticultural Society, Messrs. Bide and Son staged a vase of flowers of it that were superb in colour, size and form.

A Winchester List.—Those of us who have never wavered in our allegiance to the National Sweet Pea Society well remember the time when Mr. C. W. Breadmore came from Winchester and swept the boards in all the competitive classes in which he was entitled to exhibit, and thence onwards he has been prominent in the cult. From the early days he gave us novelties of outstanding excellence; but, unfortunately, they did not invariably come true to name. However, the merits

were unquestionable, and the varieties have lived where others of inferior quality have been long ago forgotten.

This season there will come from Winchester Aggie Elder, which is a real beauty in colour and form, but is near to two or three which are blessed with different names; the shade is glowing cerise. Princess Mary is blue, deeper in the wings than the standard, and the size and shape leave nothing to be desired in an exhibition Sweet Pea, while for the colour alone it ought to be grown for decoration. May Henderson is a pure deep violet of Spencer form, for which a place will have to be found. The additions to the cream pinks are bewilderingly numerous, and it is not always easy for the tyro to see striking differences. Mr. Breadmore's variety in this group is Mrs. Fred Arey. Iris, salmon, is too well known and admired to need special commendation here. Others which are offered in the same list are Frilled Cream; Lord Curzon, magenta; King Alfred, orange pink; Jack Tar, blue; Mrs. Holroyd, maroon; Annis Gibson, purplish mauve; and Flossie Jeffery, a soft shade of Iris. There are, of course, the

COLOURED PLATE.

PLATE 1458.

TWO GOOD COTTAGE TULIPS.

WHEN I wrote my notes on Tulips for last week's issue, I had no idea that such a plate as this was about to appear. If readers will refer to what I said there about Moonlight, they will see that my opinion of it is a very high one indeed. Its earliness and its beautiful pale primrose colour commend themselves to me. It is also a wonderful laster; otherwise it would not have been possible to paint these two varieties together. For as Moonlight is one of the earliest of the Cottage section, so Mrs. Kerrell is one of the later ones. Neither of them is a tall grower, and of the two the last-named is the shorter. As may be seen from the plate, it has a bloom of quite a different type to the exceptionally long flower of Moonlight, inasmuch as its petals reflex,



A FINE BORDER OF MICHAELMAS DAISIES WITH EVERGREEN SHRUBS AS A BACKGROUND.

many standard varieties in addition to those named.

HORACE J. WRIGHT.

A BORDER OF MICHAELMAS DAISIES.

A BORDER of Michaelmas Daisies makes one of the brightest features of an autumn garden. When planted in a well-chosen site, for preference against a dark background of evergreen shrubs, a most cheerful effect is produced. A particularly well-planted border at Kew is seen in the accompanying illustration, in which the tallest-growing plants are kept in the background. The tall variety here depicted is Finchley White, while Feltham Blue and Robert Parker occupy the foreground.

There is no lack of varieties, and, in addition to those mentioned, a good selection would include Climax, clear light blue with flowers 2 inches across; St. Egwin, soft pink, 18 inches; Star Shower, creamy white flowers borne in profusion, 3½ feet; and Ericoides, with Heath-like foliage and small white flowers, 3 feet.

and in its young state (the top flower on the plate) it is vase-shaped or, as I have got into the way of describing such forms, "waisted." Unfortunately, the colouring of the plate gives one the idea that it had been to the rouge-pot before sitting for its picture. I have grown it for a long time, but I have not seen it so rosy. There is a good deal of amber or buff associated with the pale warm pink, and the whole is not without a suspicion of lavender. It is a very lovely flower, but a most difficult one to describe. I may mention that both varieties are very popular among the visitors to my garden. In common with all other kinds of Tulips, these may be successfully planted during the next week or two, or even well into December, though very late planting usually results in rather short stems. This, however, is not a very serious drawback, especially where garden decoration is the main object. The flowers from which the coloured plate was prepared were provided by Messrs. Bari and Sons.

JOSEPH JACOB.

GARDENS OF TO-DAY.

CARROW ABBEY GARDENS,
NORWICH.

SITUATED in the confines of the ancient city of Norwich is the beautiful and historic residence known as Carrow Abbey, now occupied by the Right Hon. James Stuart. When visiting Norwich in the autumn we had the pleasure of meeting

Mr. Jones, the head-gardener, and through the courtesy of Mrs. Stuart had an opportunity of inspecting the gardens, which were, on account of their historic associations, frequently visited and very highly appreciated by the late William Paul. In front of the residence, which is wonderfully well preserved, is what used to be the cloister garden, this leading to the monastery, of which only a few scanty ruins remain. Around the outer portion of the cloister garden is a well-designed York stone pathway, this enclosing a large lawn. Outside the pathway, and between it and the enclosing wall, is a spacious border devoted to all kinds of hardy plants and shrubs, among the latter being a fine example, some twelve feet high, of *Retinospora obtusa densa*, a shrub that is seldom met with.

The Roses.—These are a feature of the gardens, but owing to the soil being of a sandy character, Mr. Jones has to rely mainly on the Hybrid Tea, Tea and China varieties. In a small shrubbery we were particularly interested in four huge weeping standards with stems nearly six inches in diameter, and Mr. Jones informed us that these were sent to him by the late William Paul over thirty years ago, before weeping Roses, as we now know them, were thought of. The varieties are Virginian Rambler, Ruga, Flora and Dundee Rambler. Near by is a charming sunk Rose garden, of which we give a plan. The beds and pathway were designed by Messrs. Edward Boardman and Son of Norwich, the garden itself having been at one time a skating-rink. All the beds shown are edged with Box, and the letter S in the outside border indicates a standard Rose. The dots in the same border represent bush Roses. The standards of Lord Wellington are now being replaced by more up-to-date varieties. Just outside the wall of the cloister garden *Rosa wichuraiana* forms a sort of overhead screen to a massive stone seat that is quite in keeping with the surroundings, while, near by, Jersey Beauty throws its long, wand-like shoots far over the ruins of the old stone wall. Mme. Eugène Resal and Comtesse du Cayla, with the scarlet-crimson Charlotte Klemm, are other Roses that do particularly well in these gardens.

In another part of the grounds, and skirting the kitchen garden, is a sunk garden with a long stone pathway and raised dais at each end, which was also designed by Messrs. Boardman. The accompanying illustration will give some idea of the conception of this feature, some of the beds on each side of the pathway being, at the time of our visit, filled with scarlet Geraniums, and others with pink and rose coloured *Antirrhinums* edged with *Alyssum maritimum*. Adjoining Carrow House, which stands

kind in various parts of the country, it has this year for the first time flowered freely. In the woodland the Birthwort, *Aristolochia Clematitis*, is naturalised, and may be seen in abundance.

In the fruit-houses we were pleased to find Grapes and Peaches well cultivated, Mr. Jones having a system of growing the latter on wire trellis erected at right-angles to the front of the house, so that the light can reach both sides of the trees. In these days it is rare to find a collection of show Auriculas in a private garden, but at Carrow Abbey there is a fine lot of plants of most of the leading varieties, these Auriculas having for many years been great favourites with Mr. Jones.

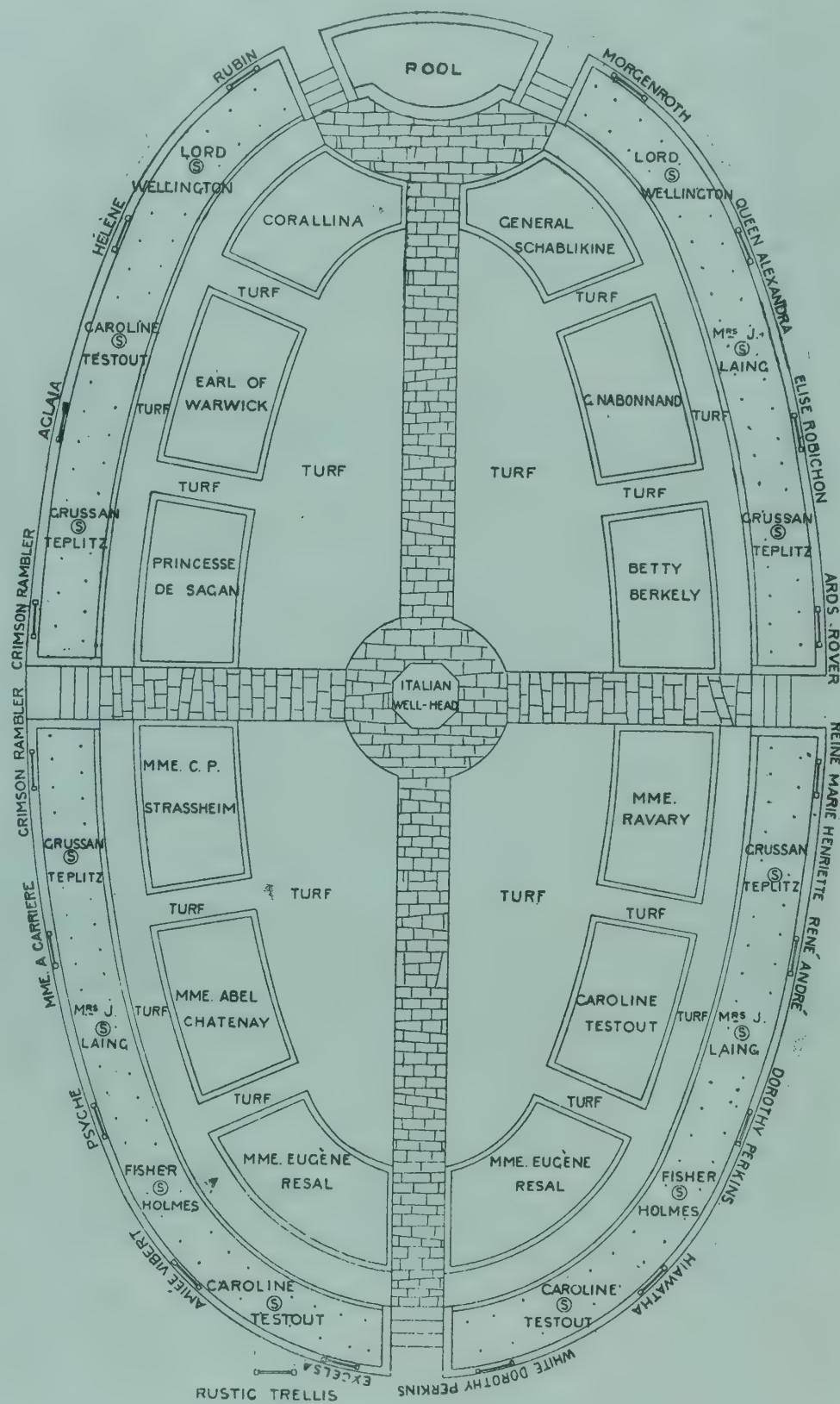
GREENHOUSE.

PERPETUAL-FLOWERING
CARNATIONS FOR
AMATEURS.

THE major portion of the good things of this life are missed by those who should enjoy them, simply because they make no attempt to do so. It is folly not to enjoy a good time now by imagining hard times hence, and to have no hobby outside the office or the workshop. With the amateur horticulturist the Perpetual-flowering Carnation is a case in point. It is essentially a plant for the amateur, whether he has a greenhouse or not. If he has one, he gets blooms the whole twelve months of the year; if not, he has the flowers in his garden all the summer and lets them remain there all the winter. There never was a more adaptable plant, nor one from which a greater number of choice flowers could be obtained at a minimum expenditure of money and labour. Therefore it must be an ideal plant to grow for pleasure, particularly so because the work is always pleasant.

Its cultivation under glass for winter bloom is simple, but the following requirements must be met—direct light, an abundance of air, and never a higher temperature than 50° Fahr. at night. Plants that live under such conditions will flourish neighbourly with these Carnations. It is a mistaken idea that you must be a multi-millionaire to enjoy the Carnations. An eighteen-penny packet of seed, or half-a-dozen plants of

named varieties costing a few shillings, will give a start, to which additions can be made. The Perpetual-flowering Carnation is perpetually growing and has no period of rest, so that no skill is required to obtain flowers. In fact, it is more difficult to prevent flowers coming. The only fear of failure is in keeping the house too warm and close. No Carnation can stand a closely-confined atmosphere, and to force the plants is





A BOLD FLAGSTONE PATHWAY IN THE SUNK GARDEN BORDERING THE KITCHEN GARDEN AT CARROW ABBEY.

death. It is quite simple to grow them in an ordinary unheated greenhouse, but during the very severe weather in midwinter no flowers will be produced. During the autumn, spring and summer, however, excellent results should be obtained.

As plants to grow out in the garden there is little fear of frost killing them. Their greatest danger is excessive moisture at the root; therefore an open, well-drained situation is desirable. The plants will then flourish from June until the first severe frost of winter. There is no doubt as to their superiority over the ordinary border Carnation now that their hardiness has been proved.

In the matter of propagation, the common practice is to root cuttings from plants grown under glass during the winter and early spring, while layering is usual with plants grown in the border. MONTAGU C. ALLWOOD
Hayward's Heath.

THE ROSE GARDEN.

NOTES ON NEWER ROSES. HYBRID TEAS.

(Continued from page 555.)

His Majesty (S. McGredy and Sons, 1909).—If one could only keep the mildew away, this variety would be worth growing; but it is almost as great a sinner in this respect as *Her Majesty*, and they would make an excellent pair for any mildew preventive producer to try his specific on before introducing it to the British public. For this reason it has been a disappointing Rose with me, and I have (reluctantly, I admit) discarded

it this autumn, so I must preach what I practise and say, "Not recommended."

Jacques Vincent (Soupert et Notting, 1909).—Beautiful, but not big enough for present-day standards. Not recommended.

Jonkheer J. L. Mock (Leenders, 1909).—This is a fine Rose, coming of good size, flowers carried

growths; colour, pale flesh pink, with the outside of the petal (which one must remember in a show flower is the side that shows the most) deep coral rose, a combination of colouring that is both pleasing and distinct. The flowers come of good shape, and I wonder more is not seen of it on the exhibition bench. It must be cut young, and resents

erect, and good habit of growth. It is also fragrant, a Continental Rose of merit, and distinctly above the average. It was one of a list of twenty new Roses that Mr. Mawley annually asks the opinion of the leading nurserymen and amateurs to place in order of merit, and I shall be much surprised if it is not found in the top half of the table. It has been well and frequently shown this season, and bears $\times \times \times$ in my own list as growing here, so those who have not grown it may, I think, add it to their list to get. It is one of the bicolors, two shades of carmine and pink.

Juliet (William Paul, 1910).—I do not grow this Rose, but I should not like my personal prejudice to prevent others from so doing. It has frequently been exhibited, and those who like its colour should not fail to try it. It is a very strong grower, but, producing its flowers at the end of each growth only, it cannot be called free-flowering. To my way of thinking its chief point of merit is its fragrance, which is very marked. I have heard it described by a lady as "the most beautiful" of all Roses!

Lady Alice Stanley (S. McGredy and Son, 1909).—Another bicolor, and possibly one of the best, as its flowers are held erect on good sturdy



AN AUTUMN BORDER IN THE SUNK GARDEN IN THE GROUNDS AT CARROW ABBEY, NORWICH.

tying. Habit of growth excellent, not particularly free-flowering, but it is very fragrant. It was awarded the gold medal of the National Rose Society, and, I think, deserved it.

Lady Barham (Alex. Dickson and Sons, 1911).—This is a fine exhibition Rose of very large size; colour not unlike Maman Cochet, deep flesh pink; but it requires a warm sun to open its numerous petals. The growth is strong but robust, certainly not vigorous, and the flowers are, consequently, held erect. A dependable flower, guaranteed not to flag in the exhibition tent.

Lady Greenall (Alex. Dickson and Sons, 1911).—I am not sure that this Rose should not more fittingly be noticed under garden or decorative Roses; but I have had one or two such fine flowers that I am going to include it here, though it is undoubtedly a garden Rose first and all the time, and an exhibition Rose only occasionally. This is one of the aristocrats among Roses, not a great number of petals, but sufficient; a good grower, fine foliage, erect, fragrant, beautiful in shape and colour. The latter varies, but a deep creamy white outside petal, deepening to intense golden orange in the centre, very inadequately describes it.

Southampton. HERBERT E. MOLYNEUX.
(To be continued.)

THE KENT COMMERCIAL FRUIT SHOW.

ON more than one occasion we have referred to the slipshod methods of grading and packing Apples and Pears for market by growers in this country, and in our issue for August 31 we published an illustrated article by Mr. E. A. Bunyard on packing as adopted in Canada and other of our Colonies in the hope that it would be of assistance to growers in this country. That this system of grading and packing in boxes must be adopted if our home growers are to compete with the Colonial fruit that now holds the market, everyone in a position to express an opinion is agreed; hence the efforts of the Kent Fruit Growers' Association and the Wye Agricultural College in this direction are worthy of the highest praise.

The exhibition held in the Corn Exchange, Maidstone, on Tuesday and Wednesday of last week was, to put it in the words of a large Covent Garden salesman, worth pounds as an object-lesson to fruit-growers in this country. All the classes were for commercial fruits, i.e., Apples and Pears, as they would under proper, up-to-date methods be sent to market, and all had to be graded and packed in Federation boxes or half-boxes, these being the same size as those used in the Colonies. That the exhibition was regarded as of the utmost



A BOX OF PEARS PACKED AND SHOWN BY MESSRS. GASKAIN AND WHITING AT THE KENT FRUIT SHOW.

importance was demonstrated by the number of salesmen and commission agents from Covent Garden who attended on the first day, and who were eager to buy, at high prices, the best graded and packed Apples that were shown.

Undoubtedly the English grower at present is somewhat handicapped when competing with Colonial growers. Many good Apples that are grown in this country are unsuitable for box-packing, owing to their soft flesh, which is easily bruised, Warner's King and Peasgood's Nonsuch being cases in point. Then, again, home growers

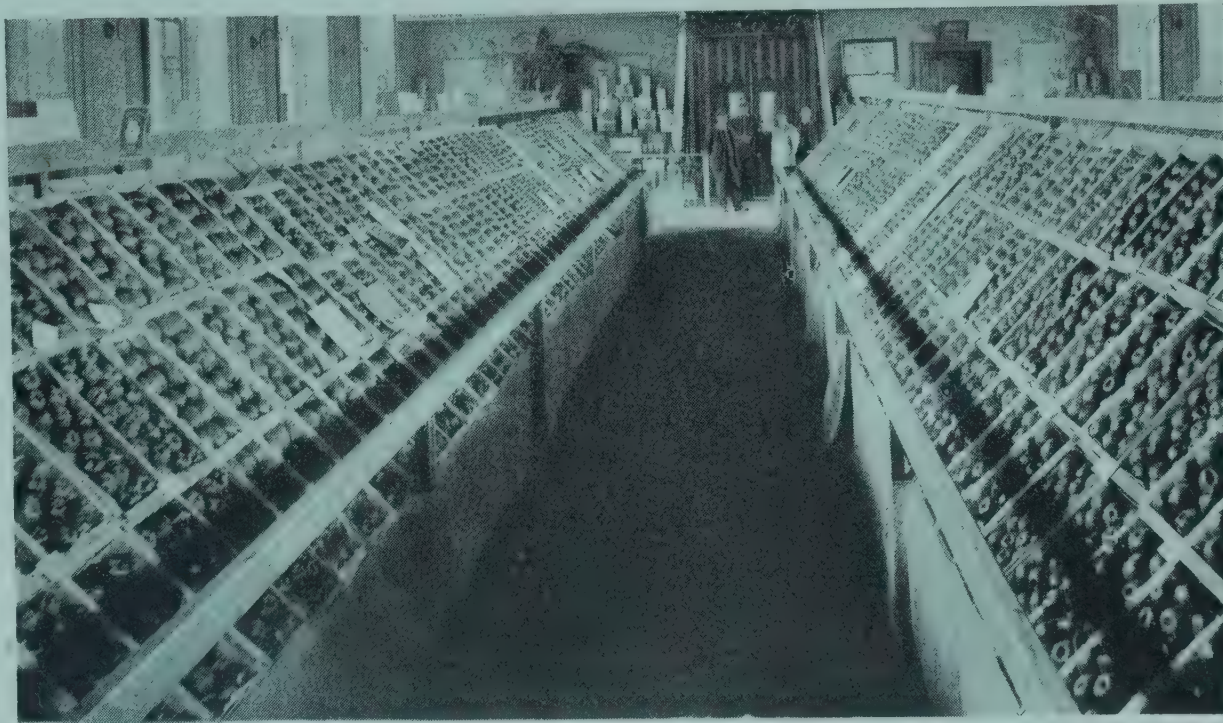
have yet much to learn in the way of grading and result. That this bad packing was, in a large measure, due to improper or insufficient grading was very evident. It is impossible to pack Apples firmly and securely in boxes unless the fruits are all of one size, and home growers will need to pay close attention to this point in future.

Two grading-machines were at work in the exhibition, one being suitable for small growers, and the other, an automatic machine that will grade over a ton of fruit per hour, being recommended for those who grow and market large quantities of fruit.

Although in many instances the grading and packing of the exhibits left much to be desired, there were a number of boxes shown that were superior in quality and packing to any Colonial samples that we have seen. The six boxes of Bramley's Seedling shown by Mr. G. E. Champion of Mereworth, and which won the Coupe Challenge Cup for the best six boxes in the show, were perfect, and the leading Covent Garden salesmen present were unanimous in the opinion that nothing approaching them had ever been sent to this country from abroad. This proves that the home grower, providing he will see about setting his house in order and introduce up-to-date methods on intelligent lines, can compete with Colonial growers, in spite of the natural advantages that the latter enjoy, and regain at least a good portion of the custom that has been captured by the more up-to-date growers abroad. The cultivation of suitable firm-fleshed varieties, such as Bramley's Seedling, Ribston Pippin, Blenheim Orange and, for earlier use, Worcester Pearmain, is a point that will have to be very seriously considered; but the exhibition and demonstration at Maidstone last week proved beyond a doubt that it is by no means impossible for English growers to compete with those in the Colonies.

We were pleased to see Lord Lucas of the Board of Agriculture present, because there are many directions in which the Board could, if it would bestir itself, assist growers of fruit in this country.

At present very little of a really practical nature is being done; but, judging by the statements made by Lord Lucas at the luncheon, more will be done in future. The stamping out of diseases, or at least greatly lessening them, by legislation, and the appointment of inspectors to see that it is done, has already been attempted, to some extent successfully, and it was pleasing to learn that investigations and experiments of various kinds among fruit are to be conducted, under the ægis of the new Horticultural Board, at the Bristol University, the John Innes Institute and Wye College. But,



GENERAL VIEW OF THE APPLES SHOWN AT THE KENT COMMERCIAL FRUIT SHOW.

packing. A careful survey of the exhibits staged at the show revealed the fact that a great many boxes were either packed too loosely or the fruits were bulging out too much above the surface of the box. In either case bad bruising would

after all, growers must very largely work out their own salvation. As Mr. Dunstan, the Principal of Wye College, remarked at the luncheon, English growers have been too long content to hide their light under a bushel—the old bushel sieve, we presume.

GARDENING FOR BEGINNERS.

A LIVE GARDEN SHELTER.

WHERE there is space available in the garden or on a lawn, a structure such as that depicted in the illustration makes a novel and beautiful little summer-house. It is composed of withes—the young lithe growths of the Willow used by basket-makers. These should be procured at any time between November and February, and each be 9 feet to 10 feet in length.

When about to construct such a summer-house, a decision must be made as to the desired circumference, but this should, preferably, be not more than 12 feet. The plan should then be staked out and a trench 18 inches deep dug out round the stakes save for a narrow space where it is intended the opening shall be. It is well to arrange that the opening faces the morning sun; this will ensure that the interior is warmed up occasionally, and that the later, hotter rays of the sun are excluded when the shelter is likely to be occupied.

Having dug the trench, the withes are planted at intervals of 2 inches and rammed down very firmly. When all are planted, the tops are bent inwards—interlaced where possible—and secured together by string, thus forming the roof. Then, beginning near the ground, lengths of the withes are interwoven, basket fashion, among the uprights all around, and the process is repeated right to the top, with intervals of about one foot between them. Here and there, but not too frequently, these horizontal binders should be secured with strong bast to a stout upright, thus ensuring greater rigidity. Slips from the common Willow strike so easily that by the beginning of May the withy wigwam will have taken root and the young growth be showing at every eye throughout the structure; and with the advance of summer the whole will be a cool, shady nook and a decidedly picturesque addition to the garden.

W. JAMES ROBERTS.

HINTS ON PURCHASING ARTIFICIAL MANURES.

THE valuation of manures quoted in an invoice, so as to get at their cost per unit, is a simple matter, and it affords a rough-and-ready indication as to value received. It is a little more complicated where a compound manure is under consideration, but it is in all cases a necessary process, as one manure can be readily compared with another in value by no other rapid and reliable method.

The Fertilizers and Feeding Stuffs Act is precise and simple in defining what is required, as this is confined to a statement of the percentage

contained of nitrogen, soluble and insoluble phosphates, and potash. If these terms are adhered to in the invoice, the price per unit is easily ascertained, and they should be insisted on. If subterfuges in the form of analogous or misleading terms are quoted, instead of these, the buyer is not so sure of his ground, because the chemical composition can be altered to match them in a variety of ways. For example, if the potash is quoted as "potash salts," the percentage may represent only about

most likely to overlook the discrepancies of description. These may be put down as "total phosphates," *i.e.*, both soluble and insoluble together, a very misleading way of stating the percentage, because the insoluble may or may not be of value, according to the kind of manure.

Another stumbling-block is the expression "bone compound," at any rate where only dissolved bones are required, because it may contain phosphates from various sources as well as bones, a good deal cheaper and perhaps more insoluble. For it is especially to be noted that the Act does not stipulate for a statement of the source whence any manure-making material is obtained, only *how much* of the ingredients mentioned it contains. It is for this reason that, in compound nitrogenous manures especially, it is impossible to get at the correct value from the figures, because the sources of nitrogen are so varied; and in the organic form, which is largely used in compound manures, the value differs a good deal, though all appears as "nitrogen." This is unavoidable, and, if the purchaser is not satisfied, it is best to buy a manure of known origin, such as fish, blood, or meat, of which the prices can be readily compared together on their known merits.

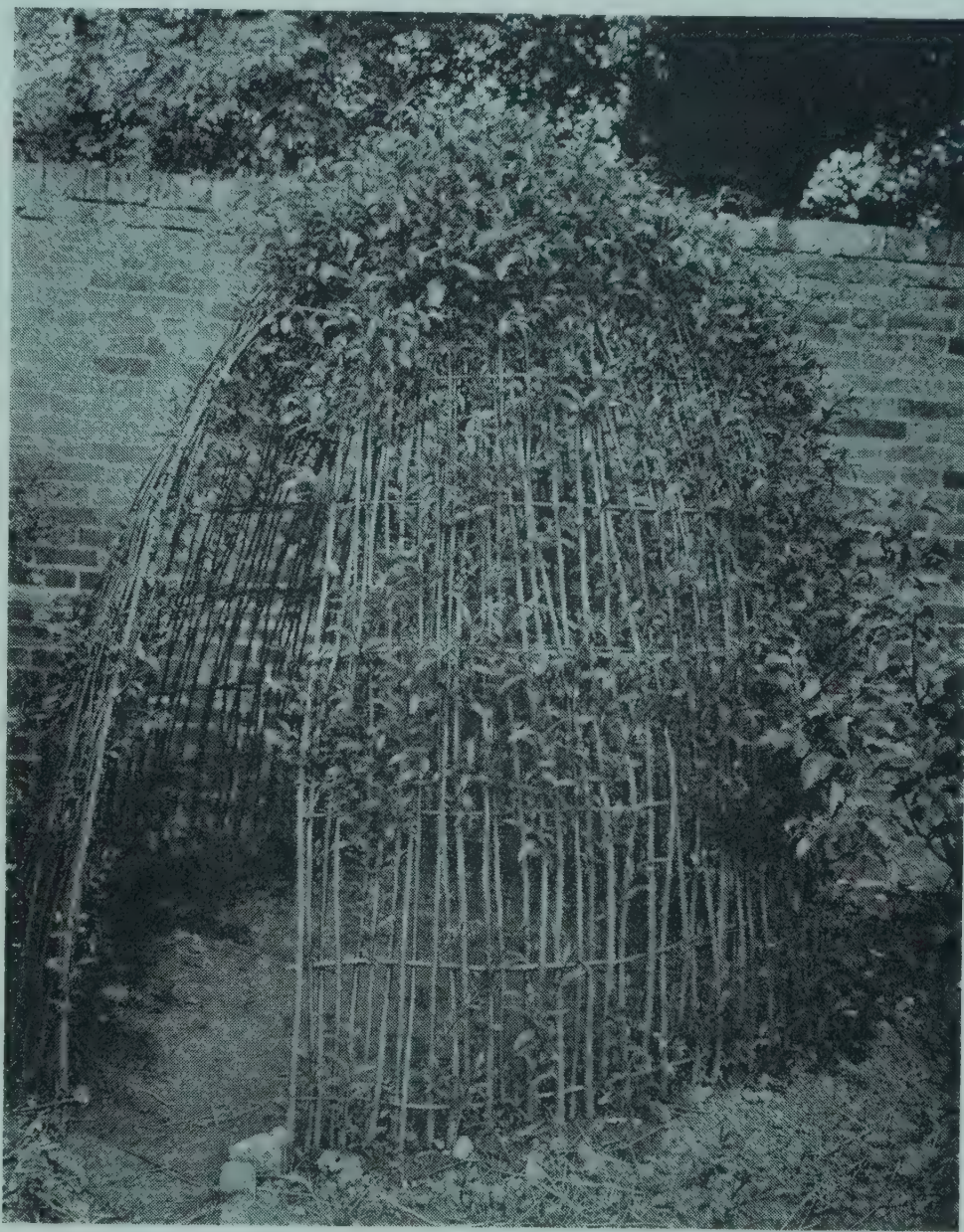
It is well to bear in mind that, under the Act of 1906, purchasers are further safeguarded. One rather important clause provides that the actual percentages must be stated, and not merely the minimum, in the case of manures artificially made, for it is in them that most of the variation occurs.

GERVAISE TURNBULL, F.L.S.

TWO LATE-FLOWERING MONK'S-HOODS.

Two Monks-hoods well represented in the long herbaceous border at Hampton Court, are not only valuable for their highly-ornamental qualities, but also for the fact that they bloom in the autumn, when nearly all their relatives

are over. The first, *Aconitum Wilsonii* (one of Wilson's introductions from China), is a tall, bold-growing plant that will reach a height of 5 feet to 6 feet. The flowers, borne in an erect, terminal spike, are of a pleasing shade of violet blue, with the hood-like portion of the flower much developed. In this species, when the blossoms on the terminal spike are past, secondary ones develop rapidly and continue the display for some time. The other species, *A. Fischeri*, has in some unaccountable way been confounded with the preceding, but it is quite distinct therefrom. This only reaches a height of 18 inches to 2 feet or thereabouts, has pretty glossy leafage, and the flowers, which are of a lighter blue, are borne in shorter and denser spikes. H. P.



A LIVE GARDEN SHELTER MADE WITH OSIER WANDS.

half the equivalent of pure potash—the amount found in sulphate or muriate of potash—or very much less. These two are far more concentrated, for example, than kainit, which only contains about twelve per cent. of pure potash, and it is for this reason that kainit is best applied a little ahead of crop requirements, so that the accompanying impurities may be washed out.

Another point that puzzles some people is "nitrogen equal to ammonia," whereby the latter appears greater than the former in amount by the proportion of 17 to 14, because ammonia contains three parts of useless hydrogen. It is an old custom without much, if any, meaning, and the buyer should see that he does not confound the two. It is, perhaps, with phosphates that the buyer is

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Hyacinthus candicans.—This stately bulbous flowering plant is of easy culture, and will thrive equally well in the herbaceous borders or in a piece of ground that has been well worked in the shrubberies, and, being perfectly hardy, may be planted now.

Herbaceous Borders.—Undoubtedly, if it can be arranged, the present is as good a time as any for replanting or carrying out any alterations in connection with these, as by so doing the plants get settled before really hard weather sets in.

Spring Bedding.—Complete any planting that may be in arrears, both of plants and bulbs, as speedily as possible, always reserving a few plants of each subject for making good any gaps in the spring. Last year especially Wallflowers and *Myosotis* fared very badly. Continue to plant bulbs for naturalising, and the surroundings under a tree that has a clear stem in the smallest garden can be made a beautiful sight by planting indiscriminately the various coloured Crocuses. *Erythroniums*, *Muscari*, *Scillas*, *Aconites* and *Snowdrops* may all be planted in various open positions with the same hope of success, and the sooner it is accomplished the better.

The Rock Garden.

Tellima grandiflora.—This plant is now with us one of the most beautiful sights in the garden, and deserves planting entirely on its merits for autumn colouring, continuing good for a lengthy period. Such a plant as this, when placed near to some of our silvery-foliaged plants, is seen to the best advantage, and all should bear it in mind and include as many plants as possible, which are a source of attraction when the bulk are past.

Viola pedata bicolor.—This has been in flower now for some time, and the beautifully-coloured flowers on long, stout stems cannot fail to be noticed. This is a plant that one can thoroughly recommend.

Plants Under Glass.

Roses.—Where very early blooms are in request and the means permit of obtaining them, a few plants should be introduced at once. The pots should be well washed, the drainage made clear, and a little top-dressing afforded the plants after the necessary pruning has been done. Any Roses now in the stove may be potted with advantage, as they will be found to root well when placed back and plunged in leaves or ashes. Avoid overpotting, use just sufficient but perfect drainage, and cover the crocks with some turfy loam. The compost will consist principally of loam, to which should be added some lime rubble, wood-ash and a little soot, and, according to the nature of the loam, so vary the proportion of leaf-mould or spent Mushroom-bed manure.

The Hardy Fruit Garden.

Root-pruning.—Hardly a season passes but what one finds some tree or another which would not benefit by this operation, and it is also one of the most interesting to observe. Young trees, especially until they become established and fruitful, often require the main roots curtailed each year, especially when planted near to a border of particularly good soil, as is often the case. Commence by taking out a trench round the tree, starting from a radius of 2 feet to 3 feet, according to the size, but preferably the latter distance. Then with a fork gradually work away the soil from the ball into the trench, combing for the roots, and cut back any gross growers devoid of the fibrous roots so essential to a good fruiting tree. Any damaged roots should also be cut away with a sharp knife, and always from the under side in a short slant towards the operator. Gradually put back the soil, place any roots in position, and for stone fruits add some lime rubble to the soil and make quite firm by treading.

Fruits Under Glass.

Figs.—For very early supplies of Figs under glass, the trees, whether in borders or accommodated in pots, should be got in readiness and everything prepared for the time to close the house. Figs are frequently dirty subjects, very liable to

infection with mealy bug, and while the trees are dormant every effort should be made to rid them of this pest. Undoubtedly the best method is to cyanide the house, and when properly carried out by a capable person there is little danger. Successional washes with paraffin emulsions and thorough cleansing of the house and woodwork will do much to combat the trouble. As soon as the plants are subjected to a little heat, and before growth gets too far advanced, on a bright day many insects may be killed by touching them with a little methylated spirit.

The Shrubberies.

Planting.—This may be carried out at any time when the weather and state of the ground permit. On heavy lands, if possible, avoid doing so when the ground is too wet. The variety of material is very wide, and subjects suitable for all positions may be found. For general effect in the shrubberies aim at a suitable intermingling of evergreen and deciduous subjects, so that too much bareness does not exist at this season, and plant so that the season of flowering is prolonged. Evergreens make a fine setting for the flowering shrubs, and if the commoner ones are utilised in the background, they make excellent shelter for more tender shrubs.

The Kitchen Garden.

Jerusalem Artichokes.—As soon as convenient now, cut down the stems of these plants and burn them with other refuse on the smother fire. Lift a few of the tubers if wanted for immediate consumption, but the bulk are better left in the ground for a time. The best way is to start at one end and prepare the ground for planting next season's crop.

Globe Artichokes.—These ought now to be well protected from frost by placing some protecting material, such as leaves or long straw litter, round the crowns.

Parsnips.—This crop is better for remaining in the ground and left to the frosts. In the event of hard weather, however, a few roots should be lifted and placed away from the air for convenience.

Onions.—Handle the large bulbs as little as possible, but see that these and the rest of the crop do not suffer through any decay.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Hollyhocks.—It is a mistake to destroy these annually after flowering, for though usually treated as biennials, plants live for many years and form very handsome specimens. My plan after cutting over the old flowering stems is to place a few spadefuls of soil around each plant as a winter protection.

Humea elegans.—Do not err in placing plants of this elegant flower in a heated house. It is nearly hardy, and, if kept free from frost, the less artificial heat it receives the better. The plants will ask for the minimum of water at the root under these conditions, but it must not be forgotten that dryness at the root is almost certain to result in the death of the plants.

Spanish Irises.—This is a proper time to plant bulbs of these. They are apt to die out, but this seems to be a result of under-feeding. Most bulbous plants esteem a rich soil, and these especially so; therefore see that the ground is properly prepared before planting. Old clumps or beds should be surface-dressed with Mushroom-bed manure, pigeon or poultry manure and soot, mixed together in about equal proportions, applying it 1 inch thick.

Tulips.—These also should be planted without further delay in ground deeply enriched with rotted manure, and a surface-dressing similar to that just noted spread over the surface. Pheasants and rats are so fond of the roots that it is hardly possible to grow Tulips where these are abundant. Wire-netting of 1½-inch mesh laid above the bulbs and 2 inches below the surface is perhaps the best means of circumventing both.

Helleborus.—At the time of writing, two species are in flower, viz., *H. altifolius* and the sweet-scented greenish yellow *H. odorus*. Through the winter these will be followed by others. Those

named and the niger section are splendid for cutting, but the flowers should be gathered young or not fully expanded, when their lasting qualities are improved. It is a great mistake to interfere with the plants at this period beyond removing foliage that is unsightly.

Lawns.—All foliage of deciduous trees and shrubs will have fallen by this time unless it be Oaks, and, if so, the grass should be cleanly swept, and any long grass that has escaped notice earlier in the year be cut close under the shrubs. If any planting of bulbs remains to be done on the outskirts of lawns, it should be completed. Limes are apt to throw suckers from the base. These I make a practice of removing while still soft. In any case they should not be left over the winter, but trimmed quite close to the bark, discolouring the cuts with moist clay afterwards.

The Plant-Houses.

Watering.—In greenhouses the greatest care ought to be taken not to spill water on the pathways, and by carefully estimating the quantity of water required to moisten the soil in the pots, none need fall from them on to the stages. The successful plantsman at all times applies water on this principle, but now it is essential for all. Crotons and many other plants which have finished growth will ask for very little water at the root. If syringed, that will be sufficient for days; but if the temperature is kept very low, syringing must be discontinued.

House Plants.—In living apartments these will need frequent watering, usually every day, a simple plan being to keep the saucers supplied with water. Change the plants at short intervals, not only on account of a change being appreciated, but also because most plants do not suffer from a brief period in the usually deadly conditions for plants that prevail in houses, and are therefore available for use after a time in the greenhouses. *Aspidistras*, *Pandanuses*, *Dracenas*, *Aralias* and the more hardy Palms that can be left a long time should be regularly rubbed with a dry cloth to remove dust.

Greenhouse Climbers.—Such things as *Kenedyas* and *Lapagerias* are apt to become overthick with growths and entangled, and may now be seen to, the superfluous and obnoxious shoots removed and those preserved neatly tied in, washing such as require cleansing before doing so. It is a never-ending recommendation to remove weakly growths from all kinds of climbing plants, the unobservant never arriving at a knowledge of their inutility.

The Kitchen Garden.

Mushrooms.—If a fresh bed is ready for spawning, it ought to be ready for Christmas, or a bed made up now might be in time, or at least for the New Year. Be very careful in the application of heat. Fresh air is essential to the sweetening of the Mushroom-house, and moisture must not be forgotten as a means of securing the proper conditions.

Celery.—Finish earthing-up the latest trenches, forming the soil into a sharp slope and making it as firm as possible to prevent it retaining wet as far as may be. We had an attack of rust in August, and have been applying flowers of sulphur ever since. White sorts escaped, but some reds were very much affected.

The Fruit Garden.

Peaches.—Young trees may be lifted with a good ball of soil attached, the longer roots to be shortened and the trees replanted without delay, adding some loam and making the looser soil firm. Young Apricots and Plums may be treated in the same way, the latter usually making shoots much too gross if not lifted and replanted in this manner.

Planting.—Nursery trees as received should be planted with the least possible delay, the practice of laying in the trees for a more convenient season being one that cannot be commended. While one need not go to the extreme of trimming the damaged roots with an upward slope—a very old practice—do not huddle them close together in a round hole. Spread out the roots 6 inches to 9 inches below the surface, and firm the soil about and above them, finishing with a stake to support the tree from wind-sway. If a mulch is applied, cover it with a little soil to hide the material and to keep birds from spreading it over the border.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

NURSERY NOTES.

MESSRS. GEORGE BUNYARD AND CO., LIMITED, MAIDSTONE.

THIS well-known firm, whose headquarters have been at Maidstone ever since the business was started in 1796, has long been noted as one of the most up-to-date in this country so far as fruit trees and herbaceous plants are concerned. Indeed, trees from the extensive nurseries at Maidstone and Allington must now be finding a home in thousands of gardens, not only in Great Britain, but in all quarters of the globe. At the time of our visit, during the second week in September, we were more concerned with the fruit trees than other subjects, and for that reason wended our way direct to the Allington nurseries, where about one hundred acres are devoted to this branch of the business. Here we found all kinds and all forms of fruit trees, from maidens to trained specimens six or more years old. The soil was ideal and the trees were splendid. During recent years there has been a large demand for pyramid and bush trees on Paradise or other dwarfing stocks, and it was interesting to note that Messrs. Bunyard, to keep well abreast of the times, have a number of extensive and well-cultivated plots devoted to these. Here one can select Apple, Pear or Plum trees of whatever size or age they may require, those which have passed their second year being in a condition to bear fruit as soon as established in their permanent quarters. Standard and half-standard trees, too, were there in great profusion and of all ages, so that those who have orchards or big plantations to make can have trees for almost every kind of soil and situation they may encounter. And the varieties are as numerous as the forms of the trees. Naturally, some sorts are more in demand than others; but after inspecting the extensive stock under the guidance of Mr. E. A. Bunyard we came to the conclusion that it would be very difficult indeed to name a variety which was in any way worthy of cultivation that the firm could not supply.

A dessert Apple of which they are justly proud, owing to the fact that they realised its possibilities before other firms, is Allington Pippin. It is, of course, now well known, thanks largely to the efforts of Messrs. Bunyard. It is a free-cropping variety that does well on nearly any kind of soil, and is of excellent flavour and just the sort for the amateur who has not a lot of space at his disposal. Baumann's Red Reinette is also an excellent Apple for a garden where space is restricted. True, its quality is not so good as that of Cox's Orange Pippin, but it is a pleasant Apple to eat and crops freely nearly every season. A batch of young trees of this variety that we saw were exceedingly beautiful with their heavy crops of brilliant scarlet red fruits. Hitchin Pippin is another good dessert Apple that Messrs. Bunyard think highly of, and rightly so. It may best be described as an early King of the Pippins, being in season at the end of September and during October. The flavour is excellent, the tree has a good habit, crops freely, and the fruits are highly coloured, so that it ought to prove a good market Apple.

Among culinary Apples, Messrs. Bunyard give a high position to Norfolk Beauty, a large, solid Apple that somewhat resembles in appearance Warner's King, except that it has a ring of russet around the stem. Early Victoria is an early

Codlin variety that bids fair to oust Lord Grosvenor from its high pinnacle. It crops equally as freely, the fruits are of grand flavour and larger, so that it has everything in its favour. Hambling's Seedling, although it does not crop very heavily until well established, is also a variety that Mr. Bunyard thinks very highly of. Royal Jubilee, which has found so much favour on the Continent, was introduced by the firm, and we were privileged to see the original tree whence all the stock has sprung. It is now a large specimen, with a trunk nearly a foot in diameter. Although we can only mention these few varieties in passing, it does not mean that there were not others worthy of inclusion. Far from it, because there were all the best recognised sorts in great abundance and in as healthy a condition as one could wish for. Indeed, the absolute cleanliness of the stock, in a season like the present, surprised us very much until Mr. Bunyard explained that every year a certain amount of new farm land is taken in for the young fruit trees, so that a perfectly clean start is assured.

As with Apples, so with Pears, Plums and Cherries. We have already made passing reference to the trained trees of these, and, taken as a whole, we never remember seeing a better lot. Such good varieties of Pears as Beurré Hardy, Louise Bonne of Jersey and Conference were there in their thousands, and the heavy crops many of the young trees were carrying proved that the right system of pruning and training to induce fruitfulness had been adopted. Small fruits, such as Gooseberries, Currants, Raspberries and Strawberries, are all grown in very large quantities, the firm having for many years made a speciality of Strawberries. Nuts, too, for which the county of Kent is world-famed, also find a home in the Allington nursery, and anyone who wishes to secure plants of the genuine Kentish Cobs and Filberts can rest assured that they can be obtained here.

The cultivation of fruit trees, such as Apples, Pears, Plums and Cherries, in pots is now very largely adopted in many gardens, and those who visit the Royal Horticultural Society's autumn shows will know that Messrs. Bunyard are past-masters of the art. Their orchard-house is a lofty, span-roofed structure, and trained up the pillars and along the girders are cordon Pears, these being planted out in the natural soil. At the time of our visit the pot-grown trees, which had been in the house, were accommodated in a skeleton house covered with wire-netting, and some very beautiful examples there were. In growing such fruits in pots a great deal depends upon the judicious selection of the trees at the outset, and, judging by what we saw, we should say that Messrs. Bunyard have an excellent stock of all kinds suitable for the purpose.

When we inspected the Roses, we found the same cleanliness and attention to detail apparent. All the bush sorts in particular were wonderfully good, and we have seldom seen better breadths of such varieties as Lyon, Pharisäer, Caroline Testout and Mme. Abel Chatenay. Many of the standards, which looked exceedingly well, were budded on the rugosa stock, which in the opinion of many is better for a number of purposes than the Briar. Certainly it transplants much more readily and does better on light soils than does the Briar.

In addition to an extensive stock of herbaceous and alpine plants, which are grown in their Maidstone nursery, Messrs. Bunyard have a very fine stock of hard-wooded ornamental trees and shrubs, including Rhododendrons and Azaleas, hardy

Heaths, Daphne Cneorum, Japanese Maples, Tamarisks of various sorts, including the beautiful *æstivalis* or *Pallasii rosea*, *Hypericums*, *Berberises*, Thorns and numerous kinds of conifers.

The few foregoing notes, brief though they are, may, perhaps, serve to indicate to some extent the extensive business that is carried on by Messrs. George Bunyard and Co. in a county that has long been known as the Garden of England.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

BORDER OF ANNUALS AND ROSES (K. M. K.).—The undue legginess of all the plants is doubtless due to an excess of shade, and in a small enclosed area this would of necessity be enhanced. Certain annuals do not object to partial shade, provided it is not too dense, and Poppies, Larkspurs, *Bartonia*, Lupines, Asters, Stocks, Snapdragons, Linums, Marigolds and *Eschscholtzias* are worthy of trial in the circumstances. You could, of course, treat the border entirely as a shady one, and grow Lilies, Primulas, Polyanthus, Violas, Phloxes, Irises and much else that would do quite well. Roses that would be likely to suit your purpose are American Pillar, Hiawatha, Grüss an Teplitz, Philadelphia Rambler and Lady Gay, or these could be employed in conjunction with *Clematis Jackmanii superba*, C. Mrs. G. Jackman and C. Miss Bateman.

INCREASING AUBRIETIAS (E. P.).—You failed in this matter because the method, material chosen and time selected for doing the work were all wrong. Had you, when the plants had finished their flowering, closely cropped them over with scissors or shears, pricked up the soil around, given a light mulch of new soil, and watered and encouraged fresh growth for a few weeks, you would have had no difficulty in increasing your stock of plants. After such a preparatory course of treatment you could have lifted your now reinvigorated plant—you dealt with the other plant during a period of reduced vitality due to flowering—shaken or washed away the soil, and divided it as freely as you wished and with impunity. Such divisions in early September could have been firmly replanted in well-prepared garden soil; there would have been no occasion for potting them off. Moreover, young cuttings or slips would at the same time have been available in plenty, and these torn off with a heel attached and inserted in sandy soil without more ado would have rooted quite freely. In early April, had you curtailed the growth a month previously, the plants could have been lifted and divided with equal success at that season also, though of necessity the season's flowering would have been sacrificed.

CARNATIONS AND SOIL (E. G. Fawcett).—There were no insect pests in the sample of soil submitted, though for Carnations it would be considered too light, and the addition of lime and loam of a stony or heavy nature might to some extent prove helpful. The sunless position, naturally, is not of the best, though we imagine the fault to be due to the plants themselves rather than to the other things named. From what you say of the plants we should imagine that the Carnation maggot is largely responsible for the failure, though that could only be definitely settled by our seeing the afflicted plants. If the plants are of your own raising and from layers, you might put them to a test of hardiness or otherwise by potting and framing them for the coming winter, and, if maggot was the cause, an earlier evidence of its effects would be forthcoming. Often following the attacks of this pest, a swelling of the stem—the result of rupture owing to the movement of the maggot—is seen, and at such a time the end is not far off. If you could send a sample of the plant, we could tell you if it is healthy or not. There may be other causes of the failure of which we have no information. Are the plants well rooted when put out? Is the stock an old one, long grown in the garden or locality? If so, these may affect it.

PLANTING PRIMULAS AND IRIS KÄMPFERI (M. M. R.).—The first-named, *Primula japonica*, could be put out at once, as by so doing the roots would take hold of the soil before spring, and thus enable the plant to make the best growth in its season. The best time for planting the Iris is early April, when growth and root fibres practically come away together. If planted during late autumn, an indifferent growth often ensues, though to some extent this depends upon soil and surroundings.

ROSE GARDEN.

NAME OF ROSE (*Lady Franklin*).—The Rose is certainly Frau Karl Druschki and not Grand Duc de Luxembourg. This latter should be a rich rosy red, the reverse of the petals brilliant lake. It is a fine Rose for bedding, and a very vigorous bush.

INJURY TO ROSE FOLIAGE (*Barholm*).—The foliage you send is badly affected with red rust or orange fungus. You cannot do much now to check the disease, but we advise you to gather the worst leaves and burn them. In winter remove the surface-soil to a depth of 2 inches or 3 inches and burn it; then in spring, soon after pruning, spray with Bordeaux mixture and repeat it every week.

STANDARD ROSES BLIGHTED (M. H.).—The foliage sent is badly affected with orange rust or orange fungus. It has been very bad this year, and it seems to us to be worse upon Roses imported from the Continent. You can do very little now except to remove all the fallen foliage and burn it; then have the surface soil burnt to a depth of 2 inches or 3 inches. Next spring, after pruning, spray with Bordeaux mixture, and continue this at frequent intervals.

SEEDLING ROSES (E. L. W.).—It would have been better if you had planted out the little plants in September, but it is too late now. Keep them in a cold frame until April, then plant out. They are very liable to damp off, so it is well to keep them on the dry side. If they are from very choice seed, it would be advisable to keep them in the greenhouse; and if they commence to put out new growths, do not check them, but just keep them gently growing and then plant out in May. Do not prune at all.

FORCING RAMBLER ROSES (E. N.).—These beautiful Roses, in order to have them in bloom by May 1, should be placed in a cold frame early in December and pruned at the beginning of the New Year. You must refrain as much as possible of the long growths made this summer, but side growths are best cut back to one or two eyes. Start the plants in a temperature of 45° by night and 50° by day, and increase this to 50° by night and 55° by day as growth advances. If they appear to be coming on too fast, you can regulate them by affording top ventilation.

VARIOUS QUERIES (*Kangaroo*).—The four Roses you name are of quite easy culture. Rayon d'Or should be grown in a bed by itself, as its wonderful daffodil yellow would not blend well with yellows of other shades. Sunburst and Lady Hillingdon would go well together, but Lady Pirrie would blend better with Roses such as Mrs. A. R. Waddell or Arthur R. Goodwin. 2. Aurora would be a good coppery yellow China to plant with Laurette Messimy. Queen Mab is also a nice soft apricot shade. 3. Gottfried Keller is a rather difficult Rose to establish; but if you encourage good young growth by pruning back hard in spring, we think you will find it flourish all right.

PRUNING ROSES BEFORE TRANSPLANTING (M. M. T.).—It will not be necessary to cut the Rose back very much at the time of replanting. Just cut away the soft wood and remove all foliage; then in March prune the growths made this year back to three or four eyes from their base. The weeping standards will require little or no pruning in the coming spring, as you say they were cut back hard at the time of planting last year. When they have flowered next summer, you should cut away some of the flowering growths, in order to encourage new growths for the following season's bloom. If you have the chalk well broken up and add some humus, such as leaf-soil, spent Hops, chopped turf, &c., you will be able to grow good vegetables; but on all chalky soils it is well to mulch the surface well with rotted manure or spent Hops during hot weather to conserve the moisture.

ROSES IN CHALKY SOIL (M. M. F.).—As there was only about six inches of new soil given last season, we should advise you to replant the Roses in November. Just dig them up and put the roots in a trench, covering them well with soil. They will then be quite all right while the beds are remade. Take out another 9 inches of the chalk; then, when putting in the new soil, add a liberal quantity of cow-manure, and you might work in a little well-rotted manure with the remainder of the soil. This will be much better than digging in manure to the beds as they are. In the fine Rose garden at Downside, Leatherhead, the owner, Alfred Tate, Esq., had to have many hundred tons of chalk removed and replaced with soil before this garden was formed, and the splendid condition of the plants amply repaid him for this great expense.

THE GREENHOUSE.

PARSLEY FERN (CRYPTOGRAMME CRISPA) (*Pyrenees*).—This plant is quite hardy, and may be grown outside in the Fern border, but should be planted in loose stony ground or between two large stones where it will never get dry. It may also be grown in a pot in a cold frame which is shaded from the sun. Cold greenhouse treatment is also suitable for the Parsley Fern.

THE CULTURE OF TYDÆAS (L. A. H.).—Tydæas are a very pretty, free-flowering race of gesneraceous plants. They will continue to bloom throughout the greater part of the year; in the greenhouse during the summer, but in autumn, winter and early spring they succeed best in a warmer structure. A winter temperature of 50° to 65° will suit them well.

ODONTOGLOSSUM CRISPUM (*Anxious*).—The shoot sent would indicate that water has been allowed to collect at the base of the young leaves, and this, owing to the dull, cold weather, would do harm. This may have been from overhead watering or syringing, or even when sponging. You do not say whether you used any insecticide when sponging; if so, it may have caused the damage. While we find traces of thrips, we have not been able to discover any of the insects; hence we conclude that they have all been killed by fumigation.

THE CULTURE OF CUPHEAS (L. A. H.).—Cupheas need just about the same treatment as the Heliotrope; that is to say, they winter better in a temperature of 50° to 60° than in a structure from which frost is just excluded. One species—*Cuphea ignea*, or platycentra—is extensively used for summer bedding. It is a bushy plant that bears a great profusion of tubular flowers. It, as well as the others, forms very pretty decorative plants for the greenhouse. They will succeed under the same general treatment as the Heliotrope.

SALVIA PRIDE OF ZURICH (L. E. G.).—The plants may be wintered in the greenhouse, taking care not to overwater them. With the return of spring young shoots will be freely pushed out, and when these are about a couple of inches in length they make the best of cuttings. They should be treated just like cuttings of Fuchsias, that is, dibbled into pots of sandy soil, and kept close and shaded in a propagating-case till they are rooted, which will not take long. If the atmosphere is too dry, red spider is apt to attack the leaves in the spring.

BEGONIAS (H. A. S.).—It is absolutely impossible to state any definite cause for your Begonias dropping their buds, as you say nothing whatever concerning the conditions under which they are grown, except the size of the pots they are in and the fact that the house is shaded during the greater part of the day. The trouble, however, may be caused in various ways; for instance, the roots may be kept too wet or too dry, or the pots may be full of roots, so that they would be benefited by a little stimulant. An excess of stimulants, too, would have the same effect. If the plants are attacked by thrips or the Begonia mite, many of the flowers will drop before opening. By far the most satisfactory plan would be for you to get some practical person to see your plants and the conditions under which they are grown, as he would then be better able to advise as to their treatment.

BEGONIAS AND GLOXINIAS (*East Anglian*).—As far as can be judged from your letter, there seems no reason why your Begonias and Gloxinias should die off in the way they do. We cannot help thinking that somehow or other the frost has access to them. The stimulant named would have had no injurious effect unless it was used very strong. As you have had such a poor measure of success by keeping the plants in the spare room, we think it would be a good plan to try them during the forthcoming winter in the structure where they have been growing, that is if it is kept quite safe from frost in the winter, with a temperature of 45° to 60° at that season. The minimum of 45° represents, of course, the lowest night temperature. During our years of experience we always shook out the tubers clear of the soil after they became quite dormant, and laid them in trays of fine sandy soil or pure silver sand. If the material got too dry, it was occasionally damped; but this was not necessary in the depth of winter. There is no preservative in which the tubers can be dipped. When the season of growth is ended, the drying off should be gradually carried out.

FRUIT GARDEN.

PEARS DESTROYED BY BIRDS (A. R.).—Black rags tied to the tree will often scare away birds. Lines of black thread fastened here and there between the branches is an excellent preventive. Birds, as a rule, will not attack Pears until the time of ripening commences, and it may be that in consequence of the dry and warm April your fruit is ripening earlier this year. The way to find this out is to cut a fruit and examine the seed. If it is quite white, the fruit is not approaching ripeness; but if it is turning brown, this is a sure sign that the ripening process has commenced, and the fruit may be gathered. Rather than let the fruit be wholly destroyed by the birds, we should prefer to gather it at once and store it in a cool room. It will be ripe earlier, no doubt.

APPLE TREES ON COLD CLAY LAND (R. P.).—You do not say whether the land is well drained or not. It would be courting failure to plant Apple trees on such land unless it is well drained. The cheapest way of preparing the soil will be to have it steam-cultivated, breaking it or stirring it to the depth of at least 2 feet, and then throwing up the soil into fairly high ridges, or mounds as you call them, the whole length of the ground for each row of trees. This would help to raise the temperature of the soil as well as drain and aerate it. In planting in soil of this description it will be necessary to select such varieties only as are most likely to succeed, because it would be a fatal mistake to plant weak growers or those inclined to canker in soil of this character, such as Cox's Orange Pippin, Ribston Pippin, Lord Burleigh and many others of good quality, which, however, are known to be weak growers. We suggest the following six sorts on the free stock (Crab): Early dessert Apple, Worcester Pearmain; midseason dessert Apple, Allington

Pippin; late dessert Apple, Barnack Beauty; early cooking Apple, Ecklinville Seedling; midseason cooking Apple, Lord Derby; late cooking Apple, Bramley's Seedling.

MISCELLANEOUS.

INJURY TO ROSE AND VINE LEAVES (M. E. R.).—The Rose and Vine leaves were apparently attacked by aphides earlier in the year, and the blackish spots upon them are due to the growth of a fungus on the excrement of the insects. We should advise a thorough cleansing of the house during the winter, and of the trees also, and if the aphides appear again in the spring, immediately fumigate with one or other of the excellent fumigants now on the market.

BLANKET WEED IN PONDS (Mrs. Hugh Graham).—You cannot do better than apply sulphate of copper to the water in your pond at the rate of one part to 750,000 or 1,000,000 parts, or you may even use it at the rate of 2oz. to 10,000 gallons of water. Apply the sulphate of copper in a canvas bag, and trail it through the water until dissolved, or mix it in a vessel and syringe it equally over the surface of the water. As the weed will doubtless appear again, it will be necessary to repeat the application at intervals of six weeks. The water should be drained off and the lake cleaned out every two or three years.

POT-BOUND PLANT (T. H. P.).—The instructions to which you refer are quite correct. A plant which has been growing in a pot for a long period becomes what is termed "pot-bound," the pot being filled with a dense mass of fibrous roots. While in the pot it can be kept watered and moist, for the water given cannot run away without soaking through the ball. But if that plant is placed in a border and the soil about it is left in a looser condition than the ball, then water is very likely to soak into the loose soil without wetting the ball. The rim of clay mentioned in the note is to keep water on the ball, so that it will slowly sink in, acting in the same way as the rim of a pot. We are interested to learn of your success in the use of leaf-mould for your Camellia and Vines.

GARDEN PATHS (H.).—The cheapest form of garden path is gravel, and if of a good binding character, i.e., containing a fair proportion of marl, will bind together with watering and rolling almost like cement. Burnt lias clay, or ballast as it is called in some districts, is good also, but does not bind like the above unless mixed with cement. Frequently good paths are made with ballast and lime, though it is necessary that the lime be thoroughly slacked and mixed before putting down, otherwise it will blow. A good path is also made of cement concrete, first putting in rough material, clinkers, broken bricks and stones to a depth of 6 inches, mingled with cement in the proportion of one to six, and finally giving a 3-inch surface dressing of finer material gauged up at three to one. This, with a sprinkling of red ballast finely screened, would make a perfect path, free of weeds, provided that it be also well drained. Brick rubble alone would not bind, and tarred paths we do not recommend.

EXHIBITING CHRYSANTHEMUMS (*Chitraloe*).—The wording of the schedule in the class to which you refer is particularly vague, and we are not surprised to find that the members of the committee are in doubt concerning it. Assuming that you have given us an exact copy of the wording, an exhibitor would be able to show an entire plant cut from near the ground-level, provided that plant arose from a single stem. In the Chrysanthemum the "stem" would be the main growth; modifications of it would be "branch" or "spray." In the outdoor or border Chrysanthemum a "stem" may support many branches; hence an exhibitor would be within the strict rendering of the schedule in showing an entire plant as described above. Doubtless this kind of thing was never intended by the committee; but if that body does not know what interpretation is right in the circumstances, what of the exhibitor? From the garden point of view the outdoor Chrysanthemum is a decorative subject, one to be shown naturally as grown, and not as solitary flower-heads, as is usual with the large-flowered varieties. Under the circumstances, we should exhibit an entire plant the produce of a single stem growth, since upon the wording of the schedule there is no limit to the number of sprays or flowers such a stem might carry.

VARIOUS QUERIES (O. S. B.).—There is no sign of any disease on the Ferns sent, but the fronds have been eaten by an insect. At the same time, all the injuries are old ones, and the authors of the mischief may be no longer present. We suspect that the trouble is caused by weevils, which carry on their work of destruction under cover of the darkness and hide throughout the day. An investigation by the light of a bull's-eye lantern might reveal some of the enemies, though they drop to the ground and hide very quickly, while, as above stated, as all the wounds are old, they may be no longer there. Caterpillars of some of the smaller moths may be answerable for the damage, in which case Hellebore powder might destroy them; but for the weevils the only cure is to catch them, a difficult matter with such low-growing plants as Ferns, as the insects drop to the ground directly they are disturbed. We cannot understand cuttings of Carnations taken from good varieties producing single flowers, and should think a mistake must have been made somewhere. It may be a case of reversion, or probably an error in cultivation may have had something to do with it, but it is very doubtful. *Spiraea arifolia*, or discolor, which is now considered to be the more correct name, needs practically no pruning, although an occasional thinning of weak and exhausted shoots will be beneficial.

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EARTHWORMS DESTROYING ROCK PLANTS (A. M. M.).—Are you quite sure of your ground? We have never known the common earthworms to eat the plants you name, and suspect the presence of some other pest, such as the spotted snake millipede, woodlouse, slug, or even short-tailed vole, all of which live on fruits or vegetable-life. Should the earthworms be more than usually numerous, prepare a strong mustard emulsion, and water about the plants with it. Take, say, a tea-cupful of mustard and, having rendered it into a thickish paste, gradually add water to the extent of two gallons. Lime-water might also be applied, while the advertised soil fumigants, if sown thinly on the surface and pricked in to a depth of 3 inches, will, in all probability, clear out the pest. These soil fumigants must be kept quite free of the plants, and on no account should the prescribed dose be exceeded. The slug, of course, usually leaves a trail behind it; the other pests named most frequently browse off the tops of the plants, or, by eating through the stems, destroy them.

HOW TO USE VILLAGE SEWAGE (W. B. B.).—The most economical and cleanest way of disposing of such sewage to the greatest advantage is, in the first instance, to form a heap of ordinary garden soil (three cartloads, in your case) on the surface of the ground near to the sewage casks. As soon as formed, open out the middle of the heap in the form of a deep saucer. Into this saucer of soil empty the whole of your sewage gradually, one cask to-day and another to-morrow, in order to give the soil time to absorb the whole and that none is wasted. As soon as all the sewage has been disposed of in this way, cover in the centre basin with soil from the sides of the heap, closing it up. Let it remain for a month in this condition, when the sewage will be effectively deodorised and all its manurial constituents absorbed by and conserved in the soil. At the end of the month let the heap be opened, turned over and well mixed, adding three bushels of fresh unslaked lime as the turning goes on. The heap should be kept as dry as possible (it is better if kept in an outbuilding). It may then be applied with much advantage to any of the crops you name. If to be dug into the soil, apply half a gallon to a square yard; if as a top-dressing, to be watered into the soil, half this quantity should be applied at each time of watering. As long as you have a good heap of this by you, you will never want for good manure.

VARIOUS QUESTIONS (G. W.).—The only self-clinging climbers are *Vitis inconstans*, more generally known as *Ampelopsis Veitchii*, and the nearly-allied *Ampelopsis muralis*, a form of the common Virginia Creeper. In both of these, however, the flowers are insignificant, so that they do not meet your requirements. It will, therefore, be necessary for you to support your selected climbers by securing the shoots to the wall, using for the purpose strips of cloth, popularly known as shreds, fastened with nails. Occasionally a trellis is fixed to the wall, and then the climbers are fixed to this; but the usual method is by means of shreds and nails. The list of climbers suitable for the purpose is an extensive one, and you may make your choice from the following: *Clematis montana*, white, spring; *Clematis Jackmanii*, purple, late summer; *Jasminum officinale* (Jessamine) white, summer; *Lonicera japonica* (Japanese Honeysuckle), summer; *Wistaria sinensis*, lilac, spring; *Cydonia japonica cardinalis*, red, early spring; and *Forsythia suspensa*, yellow, early spring. Instead of a selection from these, you might, if you wish, plant Roses, such as *Aimée Vibert*, white; *W. A. Richardson*, yellow; and *Excelsa*, red. Tuberous Begonias, *Fuchsias*, Ivy-leaved Pelargoniums, Musk, *Campanula isophylla* and *Francoa ramosa* should succeed fairly well under the conditions mentioned. The plants named should get as much light as possible, but not be exposed to the full rays of the sun. They should also be turned round frequently, otherwise they will grow one-sided.

NAMES OF PLANTS.—*Intenebris*.—*Cypripedium Sallieri* and *Hemanthus albiflos pubescens*. The *Cypripedium* requires intermediate house treatment. Keep it well supplied with water while making new growth, but give less when ripening off, although the plants must not be dried off altogether.—*A. T. Bayly*.—1, *Bredia hirsuta*; 2, *Omphalodes linifolia*.—*Forester*.—The Spindle Tree (*Euonymus europæus*).

NAMES OF FRUIT.—*E. H.*—1, Gooseberry Apple; 2, Reinette Grise; 3, Hambledon deux Ans; 4, Hereford Beefing; 5 and 7, Cat's-head; 6, Pickering's Seedling; 8, Boston Russet; 9, Court Pendu Plat; 10, Lady Hennaiker; 11, Tibbett's Pearmain; 12, Hawthornden; 13, King Harry. Pears: 1, Baronne de Melo; 2 and 4, Doyenné du Comice; 3, Josephine de Malines; 5, Beurré Dumont; 6, Bellissime d'Hiver; 7, Easter Beurré; 8, Conference; 9, Bergamotte Esperen.—*M. M. Carlisle*.—The Pear arrived in bad condition, but we believe it is Beurré Dumont.—*A. R. T.*—A, Vicar of Winkfield; B, Bishop's Thumb; C, Baronne de Melo; D, Beurré Hardy; E, Princess; F, Maréchal de la Cour; G, Souvenir du Congrès, H, Aston Town; J, Beurré Clairgeau; K, Brown Beurré.—*S. Gaines*.—1, American Mother; 2, Emile d'Heyst.—*F. Spencer*.—1 and 3, Cox's Orange Pippin; 2, Colonel Vaughan; 4, Maltster.—*W. S. Tillett*.—Apple Tibbett's Pearmain.—*A. R. T.*—8, Potts' Seedling; 9, Beauty of Kent; 10, Crimson Costard; 11, Nelson's Codlin; 12, American Mother; 13, Round Winter Nonsuch; 14, Fearn's Pippin; 15, Tom Putt; 16, Pennington's Seedling; 17, Cox's Pomona.—*Healing*.—See next week's issue.—*J. E. Lord*.—Apple, Wyken Pippin; Pear, Bishop's Thumb.—*C. B.*—1, Eramley's Seedling; 2, Hoary Morning; 3 and 7, Norfolk Beefing; 4, Allington Pippin; 5, Oslin; 6, Cox's Pomona; 8, Cellini; 9, Queen; 10, Tower of Glamis; 11, Pitmaston Duchess; 12, Baumann's Red Winter Reinette; 13, Doyenné du Comice.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

THE chief autumn exhibition of this society was held at the Crystal Palace on October 29 and the two following days. These dates, earlier than usual, were necessitated by the fact that the Receiver of the Crystal Palace had received permission from the High Court to make fixtures up to the end of October only. Be this as it may, it is most satisfactory to note that the show held on this occasion proved to be one of the finest for many years. The entries in the competitive classes were almost double those of last year, and the excellence of the show blooms on boards and in vases created a feast of colour not readily to be forgotten. In recent years the society has turned its attention to the somewhat neglected types known as Anemone-flowered and Pompons, and it is pleasing to note that the interest in these obscure but highly-ornamental forms has been so successfully revived as to bring about keen competition in the respective classes. At the same time, there appeared to be a falling off among the symmetrical blooms of the incurved section, and it seems to be only the growers of the old school who appreciate the vast amount of skill necessary to bring these blooms to perfection. Unquestionably the most imposing feature of this great exhibition was seen in the groups of colossal proportions staged in perfect taste by the leading trade growers of the country. Although there were fewer trade groups than in former years, the quality seen on this occasion was unprecedented, and the magnificent groups staged by Mr. Norman Davis, Messrs. W. Wells and Co., and Messrs. H. J. Jones, Limited, call for special mention.

COMPETITIVE CLASSES.

Competition was very keen for large exhibition blooms, and for this reason it is all the more remarkable that the first prizes in the leading classes were gained by one exhibitor, viz., Mr. T. Stevenson, gardener to Mr. E. G. Mocatta, Woburn Place, Addlestone. Mr. Stevenson was certainly showing in grand form, and among his successes he gained the challenge cup and first prize for forty-eight Japanese blooms, distinct, showing William Turner and Queen Mary, two good white varieties, the latter a novelty; Hon. Mrs. Lopes and F. S. Vallis, two capital yellow varieties; and Miss Roope, a lovely golden bloom, all in first-rate form in an admirable lot. He was likewise first in the great vase class for twelve vases of specimen Japanese blooms. Some excellent vases, each with three fine blooms, completely filled a table of great length with a wonderful show of colour. The second prize was won by Mr. T. Beeson, gardener to Mr. J. Newton Mappin, Headley Park, Epsom, with a very fine collection.

Very keen interest was centred around the class for twenty-four blooms of Japanese, for which Sir Albert Rollit, LL.D., D.C.L., president of the society, offered a silver bowl. This prize met with a similar fate, and helped to swell the many first prizes won by Mr. Stevenson. Competition was particularly keen, Mr. Sargent, gardener to Mr. G. L. Wigg, Merstham, being a good second, followed by Mr. G. Hunt, gardener to Mr. Pantia Ralli of Epsom.

Mr. Stevenson was again first in Class 9 for twelve Japanese blooms arranged for effect in a table space 5 feet by 3 feet.

For a floral display of Chrysanthemums (Class 2, trade excluded), Mr. W. Howe, gardener to Lady Tate, Park Hill, Streatham Common, secured first place with a representative group very nicely intermingled with plants in pots and suitable cut foliage.

Single varieties constituted one of the most pleasing features of this show. In the amateurs' section we noted some specially praiseworthy blooms, notably those staged by Mr. Loo Thomson, Ailsa Craig, Liverpool, who gained the premier award in the class for six vases, his best varieties being J. H. Greswolde Williams (bright yellow), Ceddie Mason (terra-cotta) and Felix (of a similar hue).

Another class which aroused considerable interest was that for one vase of single Chrysanthemums arranged for decorative effect. Mr. D. B. Crane, Woodview, Archway Road, Highgate, was the winner in this well-contested class with a nicely-arranged vase in varying colours, each flower being shown to advantage.

For one vase of three Japanese blooms, yellow, Mr. R. Evans, gardener to Mrs. Slattery, The Orchard, Marlow, was first with the variety Lady Talbot, with immense depth to each bloom.

In a similar class for any variety except white or yellow, the first prize, after keen competition, fell to the lot of Mr. D. Fairweather, gardener to Mr. R. H. B. Marsham, Bifrons Park, Canterbury, for a grand trio of the bronze-coloured Francis Rowe.

The silver Rose-bowl offered by Mr. C. E. Shea for a table of singles was won by Mr. A. Robertson of St. John's Wood for an effective and neatly-arranged table.

Once again the decorated tables created a most pleasing feature. The first prize for a dinner-table in yellow and bronze was won by Mr. A. W. Trossel, gardener to Mr. H. Attenborough of Beckenham; while the first prize in any other colour was won by Mrs. A. R. Bide, Highlands, Farnham.

AWARDS TO GROUPS.

Large Gold Medal.—This, presented by Messrs. Clay and Sons, Stratford, for the best miscellaneous exhibit, was won by Mr. Norman Davis, Framfield, Sussex, for an extensive group comprising all sections of Chrysanthemums, of exceptional quality and arranged with consummate skill.

Gold Medals.—To Messrs. W. Wells, Limited, Merstham, for a beautifully-arranged group, in which the colours entered into perfect harmony with the foliage of the Scarlet Oak and other autumn tints. The large exhibition blooms were of remarkably fine quality, and the same applies to the decorative blooms. The new white exhibition variety, Queen Mary, created a great deal of interest and secured a first-class certificate. To Messrs. H. J. Jones, Ryecroft Nursery, Hither Green, Lewisham, for a very large and perfectly-arranged group, in which single, decorative and exhibition blooms alike were well shown.

Small Gold Medals.—To Messrs. Cragg, Harrison and Cragg, Heston, Middlesex, for a splendid group of the best market varieties in cultivation. To Messrs. John Peed and Son, West Norwood, S.E., for a circular group of Chrysanthemums, in which large exhibition blooms were well represented.

Silver-gilt Medals.—To Messrs. H. B. May and Sons, Upper Edmonton, for Ferns and winter-flowering Begonias. To Messrs. Cannell and Sons, Swanley, for Chrysanthemums and Pelargoniums, also for a well-coloured collection of Apples and Pears comprising seventy varieties.

Silver Medal.—To Messrs. Young and Co., Cheltenham, for an exquisite collection of Perpetual-flowering Carnations, including the very best varieties of to-day.

New and choice Chrysanthemums were shown in large numbers, the following being the recipients of honours:

FIRST-CLASS CERTIFICATES.

Ivernia.—An attractive exhibition Japanese bloom, having fairly broad florets that reflex and build a shapely flower of drooping form. Colour, buff, suffused rosy bronze. Shown by Messrs. Stredwick and Son, St. Leonards-on-Sea.

Miss Thelma Hartman.—A very large and attractive incurved, having broad florets of good substance, evenly incurving, and building a promising bloom for exhibition. Colour, blush. From Mr. W. Jinks, Thames Ditton.

Sidney Lawrence.—This is a medium-sized single, having three to four rows of florets, specially suited to market-growers. Colour, bright amber. Shown by Mr. L. Lawrence, Shoreham, near Sevenoaks.

His Majesty.—Another excellent Japanese bloom of ideal size and form for exhibition. The florets are of good breadth and reflex in even form, building a handsome flower of a drooping character. Colour, rich crimson. Shown by Mr. Norman Davis, Framfield, Sussex.

Mrs. Gerrie Ladds.—A large and attractive single, suitable alike for exhibition and for market. The ray florets are of good breadth and evenly disposed. Colour, chestnut crimson. From Mr. Philip Ladds, Swanley Junction.

Queen Mary.—Another exceptionally large and handsome exhibition white Japanese bloom, having fairly broad florets of good length that reflex and incurve at the ends, building a very full flower. From Messrs. W. Wells and Co., Limited, Merstham, Surrey.

Miss A. E. Roope.—One of the most attractive new Japanese blooms of the present season. The flowers are very large, having very broad florets of great length that curl and loosely incurve in pleasing fashion, building an ideal bloom of Japanese incurved form. Colour, rich golden yellow.

Miss Elsie Davis.—A large, full flower of exhibition standard, having broad florets of good length, building a full bloom of good substance of reflexing form. Colour, amaranth, with silvery reverse.

Frances Rowe.—This is a neatly-built Japanese flower of drooping habit, having medium florets of good length. Colour, rosy bronze, with gold reverse. These three novelties were shown by H. J. Jones' Nurseries, Limited.

AWARDS FOR COLOUR.

Charles Hale.—This is a splendid single of medium size, and is valued chiefly on account of its rich and pleasing tone of crimson chestnut colouring. Shown by Mr. P. Ladds.

Miss N. Borrer.—A very charming single of medium size, the colour of which is a lovely tone of pink, with a white zone round a yellow disc. From Mr. Chapman, Orchards, East Grinstead.

COMMENDED.

Gladiator.—A large-flowered single, suitable for market or exhibition. Colour, red, with yellow zone round a well-proportioned disc. From Mr. Thomas Page, Hampton.

Jessica.—Another attractive single flower of large size, and of a bright chestnut bronze colour. From Messrs. Cragg, Harrison and Cragg, Heston, Hounslow.

Calgary.—This is a large-flowered single of considerable promise, the colour of which may be described as Indian red, with a yellow zone round a nicely-proportioned disc. From Mr. Philip Ladds.

No fewer than seventy-four new varieties were staged on this occasion, and several of these the committee wished to see again.

SANDHURST, YATELEY AND DISTRICT GARDENERS' ASSOCIATION.

THERE was a good number of members present at the meeting held on Tuesday, October 22, Mr. F. W. Benham presiding, when a paper on "Spring Bedding" was read by Mr. W. H. Chapman, The Gardens, Hilfield, Yateley, who first spoke of the increased interest now being taken in spring-flowering plants. Full information as to the best times for sowing of seed and increasing by cuttings of the following plants was given: Wallflowers, Polyanthus, Aias, Aubrietia, Alyssum, Erysimum, Auricula, Myosotis, Daisies, Barbarea, Stachys, &c. Lists of the best varieties and suggestions as to the ways the plants could be arranged in beds and borders were given. An



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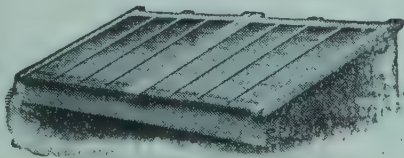
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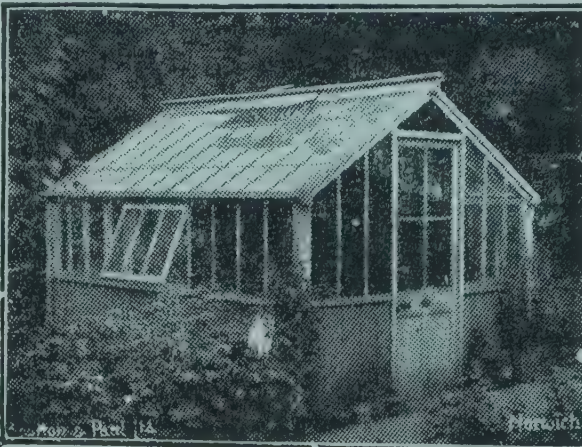
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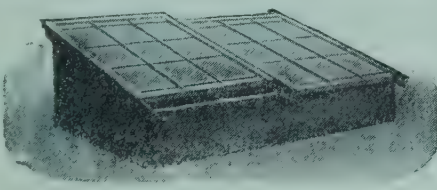
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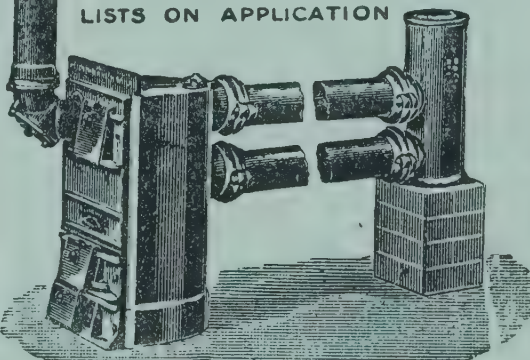
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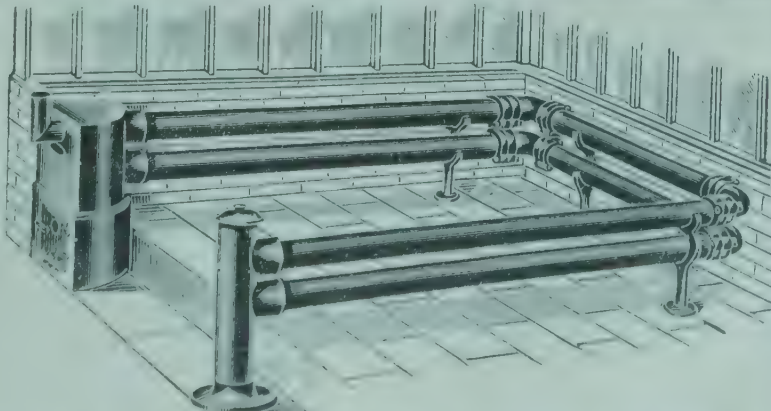
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interesting discussion followed, in which several members took part. At the close Mr. Chapman was accorded a hearty vote of thanks for his seasonable paper. Mr. Dupond staged Heaths in pots; and Mr. Chapman, *Eucomis punctata* in pots and some excellent Lettuce Sutton's Ideal.

CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

THE third meeting of the winter session was held in the Institute of Agriculture on Friday last. Mr. Edwards presided and about sixty members were present. Mr. A. Turner of the Institute of Agriculture gave an instructive lecture on "The Why and Wherefore of Watering." The lecturer described (with the aid of diagrams) the passage of water through the plant, showing how water with earth salts in solution was first absorbed by the root hairs, then carried through the stem, and finally into the leaves. Here, for the purpose of food-making, the earth salts were retained and the greater part of the water given off in the process of transpiration. Care and trouble were both required when watering, as overwatering—one of the easiest mistakes—would soon put the plant into an unhealthy state, thereby throwing it open to the attack of disease. The following conditions which governed watering were given: The kind of plant, succulent, hard or soft wooded; state of growth, slow or rapid; character and quantity of leaf surface; temperature; moisture in the atmosphere; position of plant in the house; and condition of soil. Mr. Turner was accorded a hearty vote of thanks for his interesting and instructive lecture.

TORQUAY CHRYSANTHEMUM SHOW.

THE Torquay Gardeners' Association held their annual show, which was their eighteenth anniversary, in the large hall at the Bath Saloons on October 31. It was an excellent exhibition, the competition was very close, and the flowers and plants staged were of a very high order of merit. There was a great improvement in the cut blooms, which were better than for some years, the flowers being of immense size and very well finished. The groups also were exceptionally fine, that which took first prize and the National Chrysanthemum Society's certificate being especially attractive, composed as it was of enormous flowers of varied colours that would have shown up well on the exhibition board. The groups of single Chrysanthemums were also remarkably good, the first-prize one, a wide-based column over ten feet in height, being particularly striking. Mrs. Lyon was a most successful exhibitor and, in addition to other successes, gained the premier awards for twenty-four Japanese, twelve Japanese in vases, eighteen Japanese, six Japanese, distinct, and twelve Japanese blooms in four varieties.

The nurserymen's exhibits added much to the attractions of the show. The Devon Rosery, Torquay, had a fine stand containing *Lilium longiflorum*, *Tuberoses*, *Pandanus Veitchii*, *Erica autumnalis gracilis*, *E. caffra*, *E. nivalis*, *Begonia Gloire de Lorraine*, *B. Rothschild*, *B. Turnford Hall*, *Nerine Bowdenii*, *Phœnix Roebelinii*, *Geonoma gracilis*, *Cocos weddelliana*, *Acacia platyptera*, *Crotons*, *Nephrolepis compacta*, *Citrus sinensis* in fruit, and numbers of cut Roses and Carnations. Their display of fruit was magnificent, over fifty baskets of Apples in different varieties being shown.

Messrs. Robert Veitch and Son, Exeter, provided a most attractive stand, on which were *Pentstemon heterophyllus*, the new *Berberis Wilsonæ*, *Raphiolepis Delacourii*, *Physalis Bunyardii*, *P. Alkekengi*, *Diplacus glutinosus*, *Brachysema acuminata*, *Liquidambar styraciflua*, *Crotona pygmaea*, *Clematis Nellie Moser*, *Grevillea alpina*, *G. longifolia*, *Eugenia Ugni*, *Nerine Fothergillii* major and a large number of Carnations, among which were *Lady Alington*, *Regina*, *Bonfire*, *Lady Audley Neeld*, *Sunstar*, *Harlequin* and *Rex*.

Mr. W. B. Smale, Torquay, staged *Dracænas*, *Æschynanthus pulcher*, Chinese Primulas, *Cinerarias*, *Pelargoniums*, *Cytisus racemosus*, *Salvia fulgens*, florists' Abutilons and Chrysanthemums.

Mr. R. W. Hodder, Torquay, exhibited some extremely fine Cyclamen.

Messrs. Burridge and Sons, Torquay, showed *Spiræas*, *Ericas*, Chrysanthemums and *Lilium speciosum roseum*.

ROYAL HORTICULTURAL SOCIETY.

SHOW OF AUTUMN-BLOOMING ORCHIDS.

A COMPLETE change was noticeable at the fortnightly meeting held at Vincent Square, Westminster, on Tuesday and Wednesday last. The Royal Horticultural Hall on this occasion was devoted almost exclusively to Orchids. The arrangement of tables was less formal than usual, and the massive banks and bold groups of Orchids created a bright display of colour in contrast to dull November days. Ten years ago such a show could not have been held; twenty years ago it would have been undreamt of. All of the groups shown were competitive. In conjunction with this exhibition an Orchid Conference was held on the second day, at which some of the most interesting phases of orchidology were discussed.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. E. A. Bowles, J. Green, W. J. Bean, G. Reuthe, J. Hudson, William Howe, J. F. McLeod, W. Bain, J. Dickson, C. Dixon, A. Turner, C. E. Pearson, C. E. Shea, W. P. Thomson, E. H. Jenkins, W. J. James, W. G. Baker, J. W. Barr, C. Blick, R. Hooper Pearson and G. Gordon.

Messrs. James Veitch and Sons, Limited, Chelsea, filled an extensive table with winter-flowering Begonias, which at this dull season are capable of a highly-attractive display. *Ensign*, *Elatior*, *Winter Perfection*, *Mrs. Heal*, *Julius* (of salmon tone) and *The Gem* (scarlet crimson and very profuse) were of the number shown. *Emita* (of a dark orange red shade) and *Optima* (of more salmon tone), both novelties of the moment, were also on view.

Messrs. H. B. May and Sons, Edmonton, showed some new varieties of *Nephrolepis*, of which *N. exaltata* Willmottæ is the most recent of the finer plumose forms. Next to this is *N. e. Marshallii*; then in turn come *N. e. Marshallii compacta*, *N. e. Whitmanii compacta* and others. Quite distinct in another direction, being both cristate and plumose, is *N. e. elegantissima cristata*, a plant of considerable beauty and utility; while *N. e. muscosa* is of a very dense character.

Messrs. James Veitch and Sons, Limited, Chelsea, displayed a great table bank of Chrysanthemums, more particularly of the sports that have originated from the old *Caprice du Printemps*. Of this alone there were *Red Cap*, *Greening's Caprice* (of pink colour), *Purple Cap*, *Yellow Cap* and *Kathleen Thompson* (a fine bronze and white cap, one of the most useful of all). The plants were bushes of a uniform size, roughly, 15 inches high and through, hence admirable for decoration. *Felton's Favourite*, *Countess of Egmont* (single bronze), and *Primrose Girl* (single yellow and very profuse) were also shown.

Messrs. William Wells and Co., Merstham, had a few big Chrysanthemums, of which *Queen Mary* (a monster white) is about the largest we remember to have seen. It is a large semi-incurving variety—a giant in every way. *William Turner* (white) is also very large. Wells' *White* and *Sylvia Slade* (single, reddish purple and white centre), and *Mrs. Andrew Walker* (chestnut) were also noted.

The Misses Hopkins, Shepperton-on-Thames, had a rockery arrangement treated with alpine and shrubs. A small water garden was also associated with it.

Viscountess Ridley, Cramlington, Northumberland, (gardener, Mr. E. Perry), arranged an exhibit of Carnations in good varieties. *May Day*, *Mikado*, *Mandarin* (a good fancy), *Lady Millar* (Malmaison), *Frank Galsworthy* and *Carola* were among those shown. A vase of *Hymenocallis macrostephana*, with white flowers, was also included in the group.

Messrs. Allwood Brothers exhibited some excellent vases of Carnations, among which was *Mary Allwood*, catalogued as "cardinal pink," but approximating more, we think, to a rose salmon shade. It is, however, a beautifully-refined flower, full and handsome in the extreme. The variety is delightfully fragrant. *Carola*, *Empire Day* and *Rosette* (a warm cerise) were also fine. *Fairmount*, one of the heliotrope class, was also noted.

Mr. G. Reuthe, Keston, Kent, arranged a double row of *Nerines* in variety in conjunction with a number of rare alpine, chiefly new Saxifrages, but not, alas! in flower. *Oxalis lobata*, however, was full of its yellow buds, and *Galanthus Olgae* was in good flower. The new Saxifrages included such as *Obristii*, *Petrachii*, *Stuartii*, *lingulata*, *Billardii* and others.

Messrs. William Cutbush and Sons, Highgate, N., filled a table with winter-flowering Begonias, such as *Emily Clibran* (salmon), *Julius* (double salmon), *Lady Waterlow* (a blush pink sport from *Turnford Hall*), *Elatior*, *Bowdon Beauty*, *Winter Cheer*, *Ensign* and *Beauty of Hale* (a fine double salmon of beautiful form). The habit, too, is excellent.

Mr. L. R. Russell, Richmond, showed a delightful lot of *Bertolonias*, *Anætochilus*, *Sonerillas* and other near-akin plants. They all have beautifully-veined, well-marked leafage, the *Anætochilus* particularly so. Of these latter *A. petolus* and *A. setaceus* were shown, the former having dark olive green leaves veined with gold, the latter having deeper olive green leaves marked with red. They are very interesting plants.

Messrs. H. J. Jones, Limited, Lewisham, showed a capital group of single and semi-double Chrysanthemums, as *Hector Menzies* (yellow), *Sonnie* (pure white), *Vick* (yellow), *Daisy Burden* (pale pink) and *Mrs. H. J. Jones* (a rather pretty single-flowered white). Exhibition varieties, such as *Miss A. E. Roope* (rich golden), *Mrs. H. J. Jones* (blush, incurved) and *Miss Mary Fox* (green and white), were all good from this firm.

Mr. F. Brazier, Caterham, showed a capital single Chrysanthemum named *Caterham Bronze* (a pretty and useful shade of colour).

Salmon Enchantress Carnation, of a good red salmon shade, was exhibited by Messrs. William Wells and Co., Merstham. It is full of promise.

Begonia Pink Beauty and *B. carnea* (pink and reddish carmine respectively) were shown by Messrs. Blackmore and Langdon, Bath. They are pretty and pleasing in effect.

Messrs. Cragg, Harrison and Cragg, Heston, Middlesex, had a few good single Chrysanthemums, as *Jessica* (mahogany bronze), *Portia* (reddish crimson) and *Snow Queen* (a new single-flowered Anemone variety, with small cushion and long, flat florets). The latter is a variety of great charm.

Messrs. Stuart Low and Co., Enfield, had a small though effectively-arranged group of Carnations, as *St. Nicholas* (scarlet), *British Triumph*, *Rosette* (fine cerise), *Baroness de Brien*, *Lady Alington* and *Benora* (one of the best of the striped flowers).

FLORAL COMMITTEE'S AWARDS.

Awards of Merit.—*Begonias* *Emita* and *Optima*, from Messrs. J. Veitch; Chrysanthemum *Queen Mary*, from Messrs. W. Wells; *Hoheria populnea*, from the Countess of Ilchester; Carnation *St. Nicholas*, from Messrs. S. Low; *Nephrolepis exaltata* Willmottæ, from Messrs. May; Chrysanthemums *Miss A. E. Roope* and *Hector Menzies*, from Messrs. Jones; Chrysanthemums *Portia* and *Snow Queen*, from Messrs. Cragg, Harrison and Cragg; and Chrysanthemum *Mr. Leonard Harrison*, from Mr. Harrison.

Silver-gilt Banksian Medal.—Messrs. J. Veitch for Chrysanthemums and Begonias.

Silver Flora Medal.—Mr. L. R. Russell for *Bertolonias* and *Sonerillas*.

Silver Banksian Medals.—Messrs. Cutbush for Begonias, and Messrs. May for Ferns.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), Sir Jeremiah Colman, Bart., Sir Harry J. Veitch, Messrs. J. O'Brien,

W. Bolton, W. W. Butler, W. Cobb, R. G. Thwaites, de B. Crawshaw, G. F. Moore, J. S. Moss, E. B. White, H. J. Chapman, W. H. White, A. Dye, J. E. Shill, W. H. Hatcher, J. Cypher, J. Charlesworth, C. H. Curtis, F. M. Ogilvie, F. Sander, A. McBean, T. Armstrong, F. Hanbury, R. A. Rolfe, S. H. Low and G. Wilson.

Class 1, group of Orchids (open): The first prize and gold medal were won by Messrs. Charlesworth and Co., Hayward's Heath, who showed *Epidendrum vitellinum* in great quantity, the orange scarlet spikes being interspersed with the ivory white *Odontoglossum armain-villierensis xanthotes*. *Cattleya Portia* and *Lælio-Cattleyas* in variety contributed to an exhibit of remarkable quality.

Messrs. Sander and Sons, St. Albans, staged a capital group of Orchids in season, in which *Cattleyas*, *Cypripediums* and *Odontoglossums* were alike well represented. The gems of this collection included *Lælio-Cattleya* *Walter Gott*, *Cattleya Mulleri*, *Cypripedium Edith Lucas*, and a showy batch of the dwarf *Pleione præcox*. Gold medal.

Class 3, group of Orchids (amateurs): Mr. G. F. Moore, Chardwar, Bourton-on-the-Water, sent an admirable collection of *Cypripediums*, chiefly of the insigne *Sanderæ* type; *Cattleya* hybrids, in which the influence of *Brassavola digbyana* was apparent; and a grand centre of *Dendrobium Phalenopsis*, both white and red. Gold medal.

Very fine indeed was the extensive collection sent by Sir Jeremiah Colman, Bart., Gatton Park, Surrey (gardener, Mr. J. Collier). The group comprised *Cattleya Portia* *cærulea* in quantity, *Cattleya labiata* in variety, and a most interesting collection of *Masdevallias*, *Bulbophyllums* and *Liparis*. Large silver cup.

Mr. H. S. Goodson, Fairlawn, West Hill, Putney, sent a fine lot of *Cypripedium* insigne *Sanderæ* and other varieties, together with *Odontoglossums*, *Cattleyas* and *Sophro-Cattleyas* in variety. Small silver cup.

A very creditable display was sent by Mr. J. Gurney Fowler, Giebelands, South Woodford (gardener, Mr. J. Davis). *Cypripediums* were the chief feature of this display, and *Cattleya labiata* was likewise well shown, the whole being overhung with arching sprays of *Oncidium* and *Odontoglossums*.

Class 4, group of Orchids (open to nurserymen): Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, staged a circular group of Orchids in season, in which *Dendrobium formosum giganteum*, *Cattleya labiata* and *Dendrobium Phalenopsis* were alike well represented. Gold medal.

Class 5 (amateurs): Mr. E. R. Ashton, Broadlands, Camden Park, Tunbridge Wells (gardener, Mr. W. A. Young), staged a very creditable collection, in which *Cattleyas* were the chief feature. Among the special gems of this group were *Cattleya Oberon*, *C. labiata alba* and *Lælio-Cattleya Beryl*. Silver cup. The second prize and a silver Flora medal were awarded to Mr. F. Du Cane Godman, Horsham (gardener, Mr. G. Giles).

We are retaining this column week by week to take our readers on "flying visits" to our new Exhibition Warehouses and Testin Grounds at Raynes Park, S.W., which are always open to the public.—James Carter & Co. The King's seedsmen.

BLOSSOMS FROM CHRISTMAS TO EASTER

Were the founders of our old-established city firms to come back to life and pay a visit to the scenes of their enterprises, what of all the latter-day changes would most surprise them?

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And if it be true that the spirits of our ancestors attend our Yuletide festivities, what must they think to see, in the depth of winter, windows, odd corners and feast-laden tables beautifully decorated by brave show of Lily of the Valley and Roman Hyacinths?

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Next week: "Daffodils."

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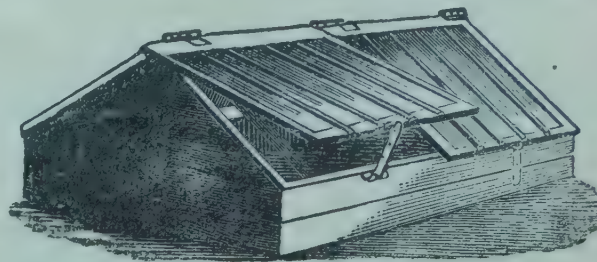
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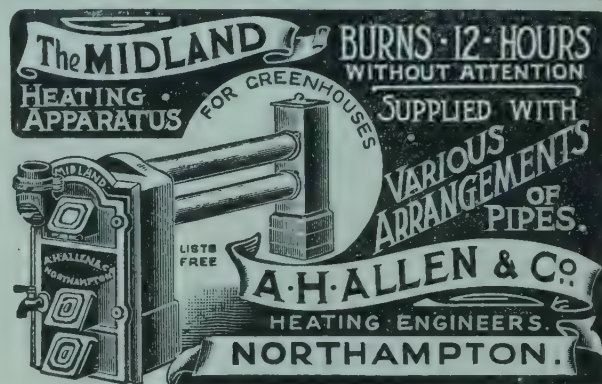
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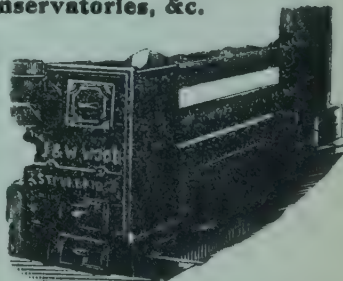
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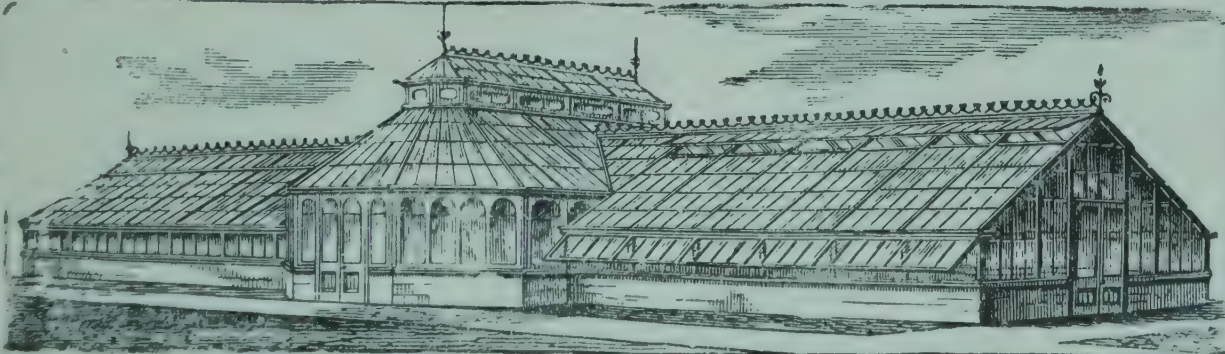
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There were numerous entries in Class 6 for a group not exceeding 100 square feet (open to nurserymen), and the following awards were made: Silver cup, J. and A. A. McBean, Cooksbridge, Sussex; silver-gilt Flora medal, J. Cypher and Sons, Exotic Nurseries, Cheltenham; silver Flora medal, E. V. Low, Vale Bridge Nurseries, Hayward's Heath; silver Banksian medal, Harry Dixon, Spencer Park Nursery, Wandsworth Common; silver Banksian medal, S. W. Flory, Tracy's Nursery, Twickenham; silver Banksian medal, James Veitch and Sons, Limited, Exotic Nursery, Chelsea, S.W.; bronze Banksian medal, William B. Hattland and Sons, Ard-Cairn, Cork.

Class 7, group of Cattleya, Laelia and Brassavola, species, hybrids and varieties (open): Gold and silver-gilt Lindley medals, Lieutenant-Colonel Sir G. Holford, C.V.O., Westonbirt, Tetbury (gardener, Mr. H. G. Alexander).

Class 10, group of Cypripediums, species, hybrids and varieties (amateurs): The Davidson silver cup, Lieutenant-Colonel Sir George Holford, C.V.O., Westonbirt, Tetbury (gardener, Mr. H. G. Alexander).

Class 11, group of Cypripediums, species, hybrids and varieties (nurserymen): Silver cup, Messrs. J. Cypher and Sons, Exotic Nursery, Cheltenham; silver Banksian medal, Mr. G. W. Miller, Clarkson Nurseries, Wisbech.

Class 12, group of not more than fifty plants of Vanda caerulea (open): Gold medal and silver-gilt Lindley medals, Sir George Holford, C.V.O., Westonbirt, Tetbury, Gloucestershire (gardener, Mr. H. G. Alexander).

Class 22, three specimen Orchids (amateurs): Silver-gilt Banksian medal, Mrs. Cookson, Oakwood, Wylam-on-Tyne (gardener, Mr. H. J. Chapman).

Class 24, specimen Orchid (nurserymen): Silver Banksian medal, Mr. S. W. Flory, Twickenham.

Class 27, collection of Orchids of botanical interest (amateurs): Silver cup, Sir J. Colman, Gatton Park, Reigate (gardener, Mr. J. Collier).

What was undoubtedly the finest group staged on this occasion was that sent by Lieutenant-Colonel Sir George Holford, K.C.V.O., Westonbirt, Tetbury, Gloucestershire (gardener, Mr. H. G. Alexander). The wonderful sprays of the blue-flowering Vanda caerulea Lady Holford were the admiration of all visitors. The wealth of colour created by Cattleyas was most exceptional. Each plant was shown to advantage, and only the very choicest of varieties found a place in the collection. We were well impressed with the grand blooms of Cattleya Fabia, C. Mantinii, C. Petersii Westonbirt variety, C. Mrs. Pitt Westonbirt variety and Laelio-Cattleya Amber. A large group of Vanda caerulea, intermingled with golden sprays of Oncidium, was one of the features of this grand collection.

In Class 29 Messrs. Mansell and Hatcher, Rawdon, Leeds, showed Cattleya hybrids in variety, while other features of a splendid group were Dendrobium coddianum, Odontioda Cupid, Dendrobium Cœlogyne and well-grown plants of Cypripedium Harefield Hall. Large silver cup.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. J. W. Bates, J. Davis, H. Markham, G. Reynolds, J. Harrison, W. Poupert, C. G. A. Nix and A. W. Metcalfe.

A cultural commendation was granted to a well-fruited specimen of the St. Michael Orange shown by Messrs. Felton and Sons, Hanover Square.

No other awards were made.

BOOKS.

Chrysanthemums.*—The author of this book is well known to lovers of gardening generally and as a gardener who excels in his profession. He is an expert in the cultivation of Chrysanthemums, Sweet Peas and other flowers, and any hints given by him on the subjects named are sure to be acceptable to lovers of gardens. The information on the "Autumn Queen" as given in the book here referred to is very concise, very practical, and absolutely to be relied upon. The author writes from personal practical experience, and puts his information and the results of his practice before his readers in a way that induces inspiration and also a desire to excel. Although details are gone into by the author in connection with the cultivation of Chrysanthemums, those details are brief, but quite sufficient for the requirements of amateurs and professional gardeners to take as a guide as to what they ought to do in relation to all phases of the cultivation of this favourite autumn flower. There are chapters on the Raising of Chrysanthemum Seedlings, Border, Japanese, Incurved, Decorative, Anemone and Pompon Sections, also on Chrysanthemum flowers suitable for decoration and those specially adapted for growing for exhibition. Selections of up-to-date varieties for each purpose are given. The instructions on propagation, composts, top-

* "Chrysanthemums," by Thomas Stevenson, with chapters by C. Harman Payne and Charles E. Shea; price 1s. 6d. net. T. C. and E. C. Jack, 67, Long Acre, W.C., and Edinburgh.

dressings, coupled with the potting of early-rooted and late-struck plants, feeding, bud-taking, housing and general treatment of both plants and blooms in order to secure the very finest specimens, are most valuable. The single-flowered section has increased in general favour very much during the past few years, both for exhibition and for conservatory embellishment, and as cut flowers. The author deals with these, and also makes some very interesting references to Chrysanthemum exhibitions and the manner of staging the blooms on boards, in vases and baskets. The packing and transit of blooms for show purposes also receives attention. We can, with every confidence, recommend this book to all who exhibit or grow Chrysanthemums for the furnishing of the glass structure or dwelling-house room. There are some beautifully-coloured illustrations of varieties. These very materially enhance the value of the book, which is well printed and bound.

Popular Official Guide to the Royal Botanic Gardens, Kew.—We are pleased to see that the

Kew officials have prepared a popular guide to the Gardens, which, together with a plan, may be obtained for sixpence. It contains notes of historic interest and brief descriptions of the most important features of the Gardens, outdoor, indoor, museums, &c. After dealing briefly with the general features and arrangement of the Gardens and plant collections, a dozen pages or so are devoted to the history and the uses of the Gardens. We are pleased to note that the connection between Kew and our Colonies is touched upon, for we are afraid that many people are apt to look upon Kew as a pleasure resort alone instead of a scientific establishment which is constantly endeavouring to forward the interests of home and Colonial industries by advice and by the transmission of plants from one part of the world to another. Kew as a school of horticulture is referred to on page 18, and the many men at home and abroad who are worthily filling important positions bear testimony to the value of this side of the Gardens' work. By the use of the guide the visitor is taken through the Gardens from the main gate, and, as he passes, his attention is directed to all the most interesting features on the route. Thus, on the various lawns the more important trees and shrubs have special allusion. The water garden, rock garden, herbaceous ground, hardy fernery, glass-houses, wall plants, &c., all come in for attention, and much of interest is said about each in an interesting manner. The Arboretum is dealt with fully, and the plan of the collections is followed, thus enabling visitors to find their way from one family of plants to another without difficulty, which has not hitherto been the case. Short notices are given of many of the more important economic products stored in the museums, and various other items about the Gardens are mentioned. Taken all through, the guide is an excellent one, and is to be commended to all who are interested in Kew.

"Country Life" for November 9 contains, among other articles, an illustrated account of "Milton, Northamptonshire"; "Tales of Country Life: The Successor," by Jessie Leckie Herbertson; "Some Trophies of the 39th Garhwal Rifles.—II." (illustrated), by Captain P. T. Etherton; "The Burning Bush," by Sir Edward Thorpe, C.B., F.R.S.

CATALOGUES RECEIVED.

Mr. Elisha J. Hicks, Hurst, Twyford, Berks: Roses. Messrs. Mansell and Hatcher, Limited, Rawdon, Yorks: Orchids (fourth edition). Messrs. Lee and Robinson, Nottingham: Roses. Mr. Henry Drew, Longworth, Berks: Roses.

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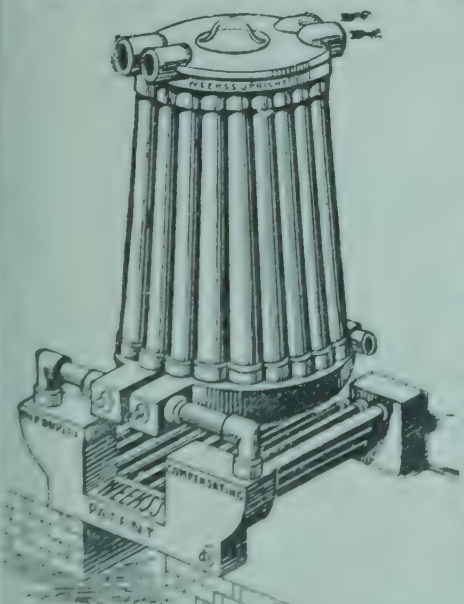
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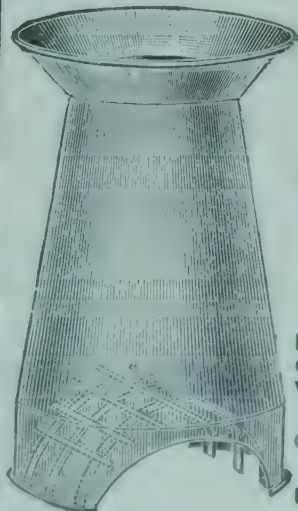
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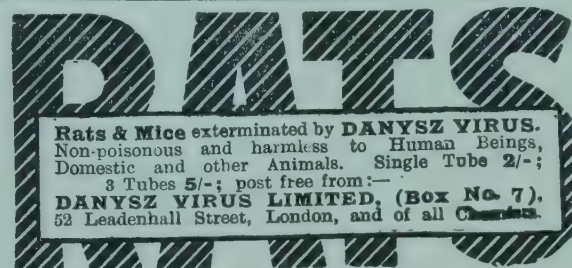
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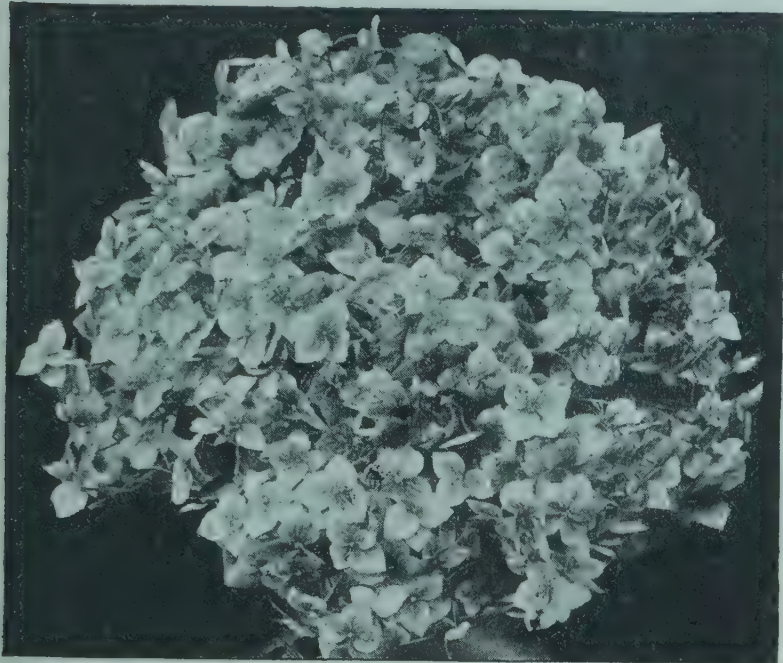
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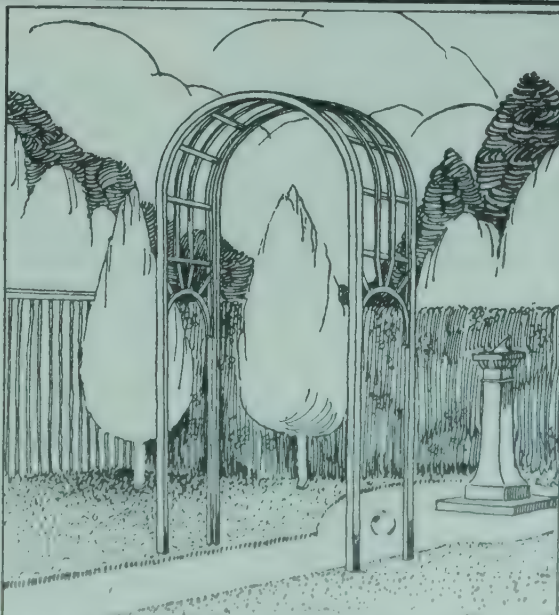
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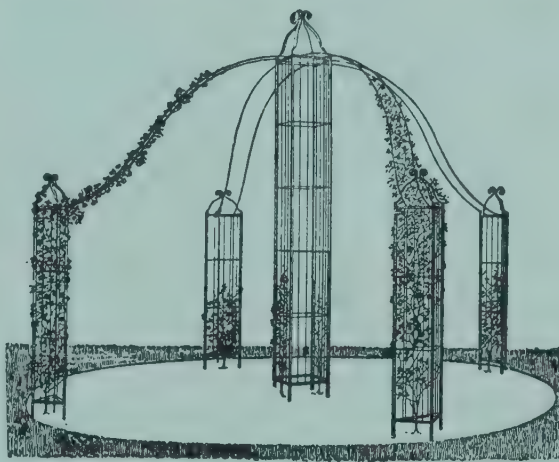
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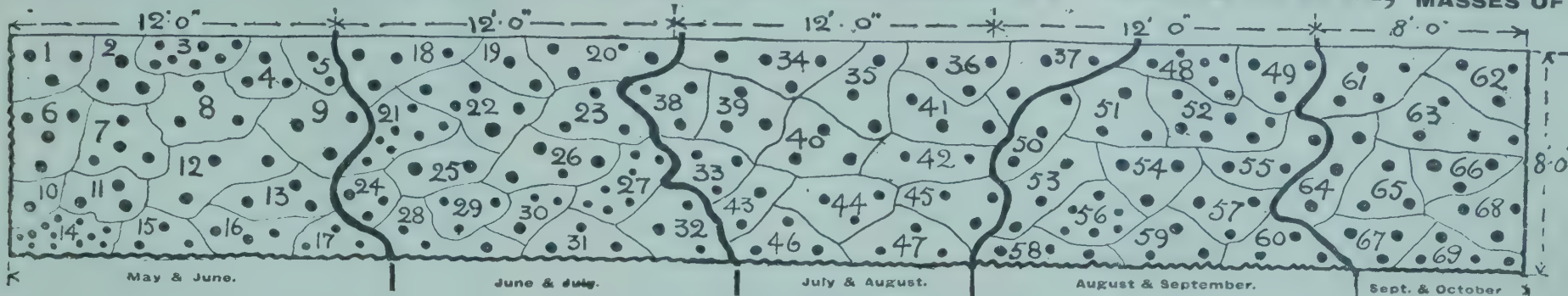
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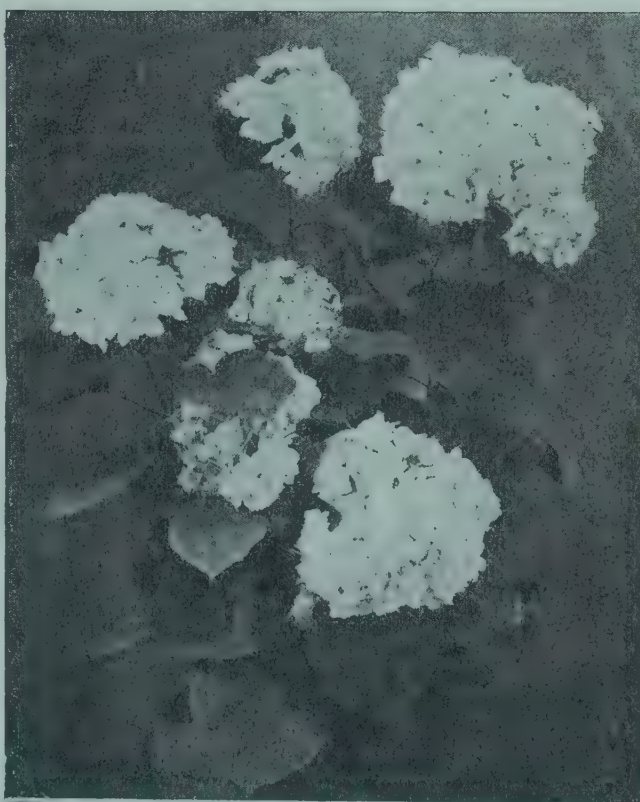
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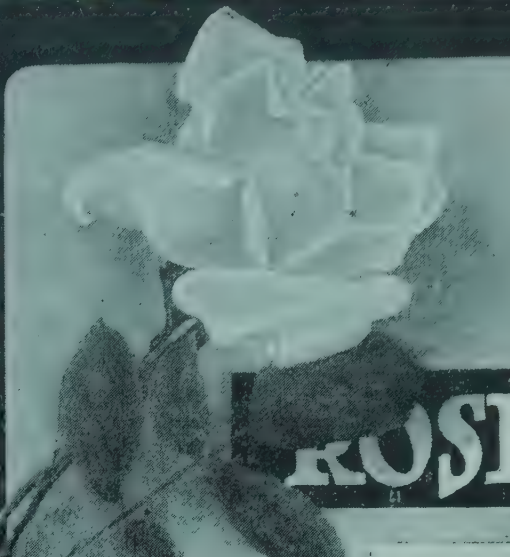
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THE GARDEN.

No. 2139.—VOL. LXXVI

NOVEMBER 16, 1912.

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EDITORIAL NOTICES.

Every description of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Office: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Hints on Planting Roses.—The National Rose Society have just published a new edition of their little booklet, "Hints on Planting Roses." This has been arranged by a committee of the society, and in the new edition the lists of varieties have been brought thoroughly up to date. Copies can be obtained by non-members from Mr. E. Mawley, Rosebank, Berkhamsted, post free 7d.

Potentilla Gibson's Scarlet.—This glorious Cinquefoil, while not reserving to October or November the best of its brilliant flowering, still furnishes those months with a touch of colouring quite unique. The leafy sprays and gorgeous flowers, too, come from a well-groomed leaf-tuft, which as a setting alone is admirable in the extreme. Of perfect hardihood and free growth, it is worthy of encouragement.

A Dwarf Michaelmas Daisy.—*Aster ptarmicoides* minor compacta is a white-flowered, small and compact-growing form of a well-known plant—a perfect pigmy in its way, if, indeed, a pigmy is to be regarded as perfect. We speak, however, of miniatures in the same sense; hence we presume the application of the term is not here inapt. As to the plant, it is little more than eight inches in height, a quite good front-row subject for the border, or, better still, perhaps, for particular places in the rock garden.

Apples with Numerous Seeds.—As a rule, the number of seeds or pips in an Apple does not exceed ten, but this year quite a lot of fruits have contained as many as sixteen or even more. Mr. F. J. Chittenden, Director of the Royal Horticultural Society's Laboratory at Wisley, in investigating the cause of some Apples not being fertile when pollinated with their own pollen, has found that this abnormal number of seeds is particularly prevalent in the varieties Frogmore Prolific and Duchess' Favourite. It would be interesting to know if any of our readers have noticed it in other varieties.

Dangers of Plant-collecting.—The dangers that beset those who undertake the collecting of new and beautiful plants from such remote countries as Northern and Western China and Thibet were brought vividly before the notice of the members of the Horticultural Club on Tuesday of last week. In his lecture, which was well illustrated by lantern slides, Mr. Kingdon Ward, who has been plant-collecting in the countries named, and who returns again in January, made it quite clear that the hardships and perils that beset the collector in those wild and unexplored regions are very real indeed. Tropical forests and Arctic mountains, to say nothing of war-loving bandits, are only a few of the difficulties that have to be overcome. When enjoying the beauties of such plants as *Meconopsis integrifolia*, *Primula bulleyana*,

Buddleia variabilis and the hosts of others that have been sent home from the countries named during recent years, we shall do well to remember those men who have carried their lives in their hands to enable us to grow these plants in our gardens.

The Washington Thorn.—Foremost among berried trees or shrubs for winter effect should be included the Washington Thorn, known botanically as *Crataegus cordata*. The shiny leaves still remain green upon the tree, while the coral red fruits hang till long after Christmas. Moreover, this tree is most attractive in its flowering season—that is in May and June. The foliage much resembles that of a Poplar, hence it is sometimes met with under the name of *Crataegus populifolia*.

Thousands of *Lilium longiflorum*.—In **THE GARDEN** for September 21, page 477, a writer referred to the desirable qualities of this Lily and the various uses to which it may be put. Not a word too much can possibly be said in its favour, and an idea of the demand for it, as well as the steps taken to meet that demand, is shown in the fact that more than four hundred thousand bulbs of *Lilium longiflorum*, represented by three or four varieties, were disposed of in a single day at one of the London auction rooms. To such an extent does the retarding process now prevail that it is more than probable that the greater number were purchased to be subjected to this treatment. By this means the silvery trumpets of *L. longiflorum* may be had all the year round.

Experiments with the Burning Bush.—Sir Edward Thorpe, who has been conducting extensive experiments with a view to ascertaining why flowers of *Dictamnus Fraxinella*, or the Burning Bush, should be surrounded by a luminous flash when a lighted match is applied to them, writes at length on the results of his trials in last week's issue of *Country Life*. These he summarises as follows: "I believe the true explanation of the phenomenon of the 'Burning Bush' is as follows: If the flower-stalks, bracts and sepals of *Dictamnus Fraxinella* are examined, however superficially, at the time of inflorescence it will be seen that they are thickly covered with fine glandular hairs, many of which have their base in small protuberant ovoid glands, or pustules, of a dark red colour in the red-flowering species. These glands are more or less filled with an essential oil containing the strongly odoriferous principle characteristic of the flower. . . . The hairs are really ducts, and so exceedingly brittle as to be readily broken by the passage over them even of small insects, when the essential oil is immediately forced out through the opening. On bringing a burning match in contact with the stem these fine hairs take fire, the essential oil is ejected, and the flame enlarged in size and rendered more luminous by the combustion of its constituents."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Beautiful Yet Simple Garden Effect.—In a small villa garden in the Bournemouth district I recently saw a number of plants of *Fatsia japonica* about four feet six inches high. One or two plants of climbing *Nasturtiums* had been trained to the stems, and eventually rambled among the leaves of the *Fatsia* plants. The light foliage of the *Nasturtiums* and the red, orange and yellow flowers thinly disposed among the large leaves of the supporting plants looked really unique and charming, and the *Fatsias* were not damaged in the least. It is surprising how uncommon features, such as the one referred to, attract the eye and add to the beauty of a garden.—G. G.

Two Good Autumn-flowering Roses.—Some of the most-prized Rose blooms I have had recently are from Edward Mawley and Florence Haswell Veitch, the former sent out in 1911 by Messrs. McGredy, and the latter in the same year by Messrs. W. Paul and Son. Blooms from the former were of exceptional size and solidity, the petals very massive, the colour intense and the perfume most agreeable. One bloom I cut lasted quite fresh for a week, and was admired by all who saw it. Blooms of the latter have not the size of the former in breadth of petal, but the petals are especially thick and well placed, making a superb flower of exquisite fragrance. The colour is even more remarkable than in the case of Edward Mawley, being more deeply shaded with black. I would strongly recommend both for a September display.—E. MOLYNEUX, *Swanmore*.

Autumn Effects at Wisley.—Visitors to the Royal Horticultural Society's Garden at Wisley should see a bed of many of the latest plants from Western China. This is to be found in the lower part of the garden, where Gunneras and Bamboos combine so well. The bed is occupied by many very interesting plants and shrubs, conspicuous therein being a wonderful form of *Berberis Wilsonæ*. The specimens of the type recently exhibited in the Royal Horticultural Society's Hall were a mass of soft coral-coloured berries, but the plant at Wisley bears brilliant vermilion berries. Noticeable in the same bed are two specimens of *Lonicera nitida*, with most graceful fine foliage, and which earlier in the season, I am informed, produce a pretty pink blossom. The autumn tints in the Wisley garden have been very lovely, but conspicuous among the trees and shrubs has been a glorious *Liquidambar*, which has attracted the attention of many visitors.—B., *Weybridge*.

A Pretty Autumn Combination.—The *Kniphofias* or *Tritomas*, which are also known as Red-hot Pokers, Torch Lilies and Flame Flowers, are bulbous plants of the showiest description, and should be grown wherever a bold and bright effect is desired during September and early in October. At a recent meeting of the Royal Horticultural Society, a *Kniphofia* was staged under the name of Lord Roberts by Messrs. Veitch of Chelsea, but it was considered to be synonymous with John Benary, and as such received an award of merit. It grows from 4 feet to 5 feet high, and the flowers are an intense orange scarlet. This plant has been in commerce for several years, and a pretty combination can be produced by planting this or some other red *Kniphofia* among *Artemisia lactiflora*, which produces terminal

panicles of milk white flowers, small individually, but very showy collectively. The *Yuccas*, with their branching spikes of white flowers, are also suitable associates for K. John Benary, while a group of the well-known Pampas Grass would also be improved with a few Red-hot Pokers intermixed.—S. T.

A Beautiful-leaved Shrub.—I have never seen *Cercidiphyllum japonicum* commence to colour so early as it did this year, nor have I ever seen it so lovely. I enclose some small tips of branches for you to see how beautiful it is with us. We have a dozen plants, some of them quite 5 feet in height and almost as much through. It would be most disappointing to find it was not quite hardy. The winter frost has not hurt it during the past three years, but it was rather badly nipped in April this year. The plants have made good growth this summer. I think it will prove to be quite as hardy as the Japanese Maples.—F. TUSTIN, *The Gardens, Abbotswood, Stow-on-the-Wold*.

The Carman Peach.—This Peach is proving to be a strong favourite for home gardens in the Central United States. It seems to thrive on warm, light soils, and to be much less desirable in colder and heavier localities. This probably accounts for the diversity of opinion expressed regarding the value of the variety. In those places where it succeeds, it is quite commonly regarded as being the most delicious of Peaches for home use. It is one of the North China type, now becoming very popular in the United States, and is quite distinct in many ways from the types of Peaches earlier known in this country and in Europe. It is a white-fleshed Peach, but colours a bright and beautiful red on the outside when properly grown. There is still a prejudice in many quarters in favour of yellow-fleshed Peaches, but those who are really acquainted with good fruit are generally of the opinion that white-fleshed sorts like Carman are really of superior flavour. This variety originated in Texas with Mr. J. W. Stubenrauch.—F. A. WAUGH, *Massachusetts, U.S.A.*

The Best Culinary Peas in 1912.—This has not been an ideal Pea season, and only a few varieties have done really well. The Pilot as a first early is always reliable here, and this season it was quite up to the average. Early Bountiful, although quite good, gave a lighter crop than usual, but the pods were decidedly larger than ever before. As a second early I again found Senator quite first-rate. Indeed, I never previously saw this valuable Pea give a larger yield, the crop being immense and the pods very large for this variety. This fine Pea ought to be much more widely grown than it seems to be. Carter's Daisy, as ever, was first-rate, an excellent Pea in every way, I was greatly pleased with the new dwarf Pea The Lincoln, raised by Messrs. T. H. Lincoln and Co. of Boston, Lincolnshire. Sown at the same time as Daisy, it came into use quite a week earlier, and gave a very heavy crop of well-flavoured Peas. The pods were packed with large seeds, averaging nine or ten to the pod. Dark green in colour, the haulm with me grew about two and a-half feet to three feet high. This must prove a valuable market Pea. Glory of Devon gave a fairly good crop, but not quite up to former years; Quite Content bore a good crop, but on my strong ground and with the wet, stormy weather it grew to a height of about ten feet, and the stakes only being about seven feet high, the haulm "kneaded" over and rather spoilt the return. Carter's Harvestman gave a good crop of excellent Peas. Royal Salute was again one of the very best main crop or late Peas. The Gladstone

was not up to the average for the first time in ten years.—C. BLAIR, *Preston House Gardens, Linlithgow*.

Roses in Holland.—Late Roses have not excelled those of last year, owing to the early frosts, and practically all plants growing in exposed situations are over for the year. In more sheltered positions the one that stands apart from all others is the old and lovely La France. Captain Christy looked promising before the cold became so intense, and with milder weather may find a late crop yet. Some varieties have been a little disappointing, and one especially so is Jonkheer J. L. Mock. It suffered badly from mildew after the first flowering, and has been unsightly ever since, in spite of attention. Can you give me the origin of a Rose named Amabilis? It is a Tea of a rather undefinable pink colour, of no special merit, and is, to its disadvantage, a weak grower. Many Roses ripened off very early, one in particular being Lyon. It has had no leaves for a month worth speaking of, also Augustine Guinoisseau. Zephyrine Drouhin finds more favour every year, and grows more and more indispensable, as also do Rose d'Evian and Johanna Sebus. General Macarthur has had a good season, having no equal in its special colour.—H. RABJOHN, *Twickel, Holland*. [There were two Roses named Amabilis, both Tea-scented. One was raised by Touvais in 1857 and the other by Robert. They were, presumably, chance seedlings, as no mention is made of their parentage, and, as you say, they are of no special merit.—ED.]

Saxifraga burseriana "tridentata."—The appearance by now of this ridiculous name in so many catalogues makes it necessary to point out the error. *S. burseriana* can do many things in the way of beauty; by no possible chance could it ever become in any way tridentate, or it would be *burseriana* no longer. The unlucky name arises from the fact that Herr Sundermann (I fancy) originally sent out under the very proper varietal name of *S. b. tridentina* that distinct and magnificent large-growing, large-flowered form of *S. burseriana* which alone prevails in the deep valleys of the Southern or Tridentine Dolomites, and from which major, Gloria and magna have each in time emerged. Tridentine being an adjective better known to ecclesiological students of the Tridentine Council, or Council of Trent, than to most gardeners, it was not unnatural that laymen should fail to recognise the varietal name as meaning simply "belonging to the district of Trent," and, having received a name that had no sense in their minds, proceeded to distribute the great *burseriana* form under a new name that has no sense in anybody's. *S. b. tridentina* is merely the prevailing form of the Trentino, or County of Trent, or Tridentine Alps; and, as by far (with its sub-varieties) the finest form known of the species and the richest in growth and flower, should also be the prevailing form in all our gardens. I will only add that in the Tridentine valleys I have never seen yet any variations from this ample and magnified form, so different from the compact little *burserianas* of the Northern ranges and of higher altitudes. For, to the confusion of those who look on *S. burseriana* as a high alpine, or have seen it shrinking into tight masses on the crests of the Karawanken, one (at least) of its most brilliant and characteristic Tridentine stations is barely seven hundred feet above the level of the Adriatic, full in the vineland that makes the valley of the Adige such a scented Paradise in June.—REGINALD FARRER.

The Century Plant at Kew.—An illustration of this interesting plant in an earlier stage of its development appeared in THE GARDEN for May 25, and a comparison with this specimen as it appeared then and as it appears to-day is not without interest. At the earlier date the flowering spike resembled a gigantic Asparagus shoot, and the huge rosette of foliage was thick, succulent and rigid. To-day the immense rosette of foliage is but a ghost of its former self. The bold step that this plant has taken in producing flowers and seed is a final one. The whole energy of the plant is centred on its reproduction, marking the close of the history of this stately specimen. The leaves, now limp and drooping, have expended their latent store of nourishment on the production of an immense inflorescence bearing flowers and seed, and the life's work of the plant is nearing completion. The specimen under notice is that of *Agave atrovirens*, a native of Mexico. The branching inflorescence is about twenty-five feet in height, and the age of the plant is probably about seventy years, although, like other *Agaves*, it is known as the Century Plant from the fallacious supposition that it flowers once in a hundred years.

Exhibits from School Gardens.—In "Notes of the Week," issue November 2, the reference to exhibits from school gardens is very timely. Such exhibits have been staged at a number of shows lately. At a recent exhibition near Poole, Dorset, there was a very fine lot of vegetables staged which had been grown by a number of boys in the neighbourhood. These exhibits were very highly commended by the judges. Some years ago I gave practical lessons to about forty schoolboys in the Master's garden, and it was astonishing how well they succeeded in growing good crops. Readers may realise it to some extent when I say that His Majesty's Inspector of Schools recommended that the highest Government grant be given to horticulture at that school. If societies were to provide classes for children, such as the Bournemouth one does, great progress would be made by the children in the work of horticulture.—G. G.

FORTHCOMING EVENTS.

November 18.—National Chrysanthemum Society's Executive Committee Meeting.

November 19.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster. Lecture by Dr. Hamilton, F.R.G.S., on "Some Gardens In and Around Bournemouth." Norwich Chrysanthemum Show (three days).

November 20.—National Chrysanthemum Society's Exhibition and Conference at Essex Hall. Newcastle Chrysanthemum Show (two days). North of England Horticultural Society's Meeting at Hull (two days).

November 21.—Norfolk and Norwich Show (three days). Aylesbury Chrysanthemum Show.

November 22.—Chrysanthemum Shows at Aberdeen (two days), Dunfermline (two days); and East of Fife Chrysanthemum Society's Show (two days).

THE FRUIT GARDEN.

HOW TO COMBAT AMERICAN GOOSEBERRY MILDEW.

SO rapid has been the spread of this very virulent disease among the plantations of Gooseberry-growers, private and commercial, during the last two years that it is greatly to be feared there are few who are unacquainted with it. It may be helpful to some if in this article possible methods of attacking the disease and holding it

summer stage, violently infectious by reason of the multiplicity of spores produced, but fairly easily attacked by spraying with fungicides. It is also pretty well known that later the felty white mycelium on the shoots turns a brown colour, due to the formation of the winter spores. These do not spread infection at the immediate time; but they are a more serious trouble, since it is by means of these winter spores that the fungus is carried over the dormant season. They are provided with a hard, outer shell or skin, and at present no fungicide is to be found which will corrode this skin without at the same time doing damage to the bush.

The spores fall to the ground during the winter, and it is from these that fresh infection is set up in the spring, when the wood is young and tender and susceptible to injury. It is because the winter spores fall off during the winter that the Board of Agriculture insist on the pruning of affected bushes being completed early in the winter, and also that all prunings should be collected and burnt. If this work is thoroughly carried out now, there is reasonable hope that the disease can be checked considerably; but, of course, if it is left till after Christmas, there is but little hope. It is a good plan, where there is only a little disease, to have the affected shoots pruned off first, put in a pail, which is kept well dressed with paraffin, and at once taken and burnt without waiting to complete the ordinary pruning of the bushes. When this latter is done, it will be possible to see any pieces of disease which may have escaped the eye at the first operation, and these can then be served in a similar way.

When the disease first appeared in this country, the Inspectors of the Board of Agriculture recommended, if they did not order, that the tips of shoots affected with the disease in its summer stage should be removed at once. As this was generally the time when growth was most active, shoots so pruned often shot again at several buds, and the resulting growth was frequently affected with the mildew, so that the only result of this treatment was to increase the amount of infection on each bush. They do not now recommend this summer tipping; but it is always open to a grower to adopt it when he thinks there is little or no danger of the pruned shoots breaking into growth. If it is possible safely to remove the tips when only the summer stage is present, the amount of infection can

often be substantially reduced, while the winter pruning work is also sensibly lessened.

Another course of action to be taken in combating the mildew is by means of spraying, and this can be done in two ways—by strong winter washing with copper sulphate, 6lb. to 100 gallons of water, when the bushes are dormant, or by more diluted summer sprays when growth is active. For this latter there are several mixtures which can be used: Liver of sulphur, half an ounce to 1 gallon of water; Bordeaux mixture, preferably in the form of paste, 1lb. to 10 gallons of water; and



THE CENTURY PLANT (*AGAVE ATROVIRENS*) FLOWERING AT KEW.

in check are outlined. There is grave reason for believing that this is, unfortunately, all that can be accomplished, and that it is not possible to stamp out the disease, but only to check its ravages and keep it somewhat within bounds.

It is not necessary to give a long, detailed description of the fungus, or to capitulate at length the various changes it undergoes in a season. Most growers know and can recognise the white, felt-like mycelium which attacks the growing tips of the shoots and the under side of the leaves on such tips during May and June. This is the

lastly, the new lime-sulphur. This last spray must be used with great caution, as it is very liable to damage the trees, completely defoliating them in some cases.

Professor Salmon of Wye College is responsible for this new treatment, and he stated a few days ago that, as far as he knew at present, it must be considered unsafe to spray Berry's Kent and Yellow Rough with lime-sulphur, that at the standard summer strength (1:01) Warrington and Whinham's were quite unhurt, while Lancashire Lad could be safely sprayed with half summer strength (1:005). As he has found trees thoroughly sprayed with this mixture

ROCK AND WATER GARDEN.

A GRECIAN WOODRUFF.

(*ASPERULA SUBEROSA*.)

THIS beautiful little Grecian plant is quite one of the most charming plants to be seen in the rock garden during the months of May and June. It is at its best at this period, although flowers are produced throughout the later summer months as well. Grown singly, the plants present the appearance of hoary, woolly tufts surmounted by numerous pretty

rain. The glass should be placed in position in early winter, and kept on till about the end of March. Both make charming plants for growing in pans for the alpine-house. They are easily increased by means of cuttings in summer, using very sandy soil and placing the pots in a close frame, or by division in the early spring. W. I.

ROCK GARDENS IN THE MAKING.

(Continued from page 564.)

Artificial Rocks.—While having not the least sympathy with, and no desire to encourage, the use of any combination of materials which might be grouped under this head, it has to be admitted that occasionally amateurs get a fair amount, both of pleasure and success, from the use of them. In past days a not infrequent thing in a garden—nursery or private—was the "wilderness"—my grandfather had one such—while variations or modifications of it were known as "grottoes," which, with their massed arrangement of shells, were more interesting to the conchologist than to the gardener; and that worst of all types, because of a hideousness and inutility better imagined than described, which one may not inaptly refer to as "crockeries," by reason of their make-up and for lack of a more descriptive term. Happily, however, these things savour of the past, the only remaining relic our gardens contain of such atrocities being the clinkered burr of the brickfields, exposed to view unblushingly in all its crudity and nakedness, or veiled by a curtain of cement, as though the very sight of these incongruous piles was intolerable to the builder himself. It is, we have been told, an attempt to imitate Nature; but we have yet to be told that the attempt was succeeded by success.

The most I can say in its favour is that it appeared ingenious. The least I can say against it is that it has ever proved a delusion and a snare.

The Least Bad.—If my choice laid between these two, I should unhesitatingly declare in favour of the ungarnished, uncemented article, for no other reason than that all its shortcomings are on view, hence do not mislead the gardener. Moreover, crack and cranny and crevice—assets of inconceivable value even in the best-arranged rock gardens—are all retained and available for treatment. In the cemented, made-up form this is not usually so; hence one of the greatest sources of decorative planting—that which above all others not merely embellishes but effaces rock—is dried up. In all probability this make-believe kind of rock gardening has had its day, and in its stead is springing into being a type far more beautiful and valuable—particularly so from the utilitarian standpoint—than such incongruities could ever be. Moreover, and so far as I have observed, these great artificial erections perform no function of which the natural rock is not capable, nor are they to be recommended from an economical point of view. On the other hand, I am tolerating for the moment the untold crudities of the uncemented clinkered burr for the sake of those who



THE GRECIAN WOODRUFF (*ASPERULA SUBEROSA*) IN THE ROCK GARDEN.

quite immune to the disease, while those unsprayed on each side were very badly affected, it is evident that there is some ground for hope that lime-sulphur may be extremely useful in combating the mildew, particularly if the scientists can overcome the liability to damage certain varieties.

There is yet another method which is being tried, that is, the application of finely-ground sulphate of iron to the ground around the bushes to destroy the winter spores which may fall, or, if this is not possible, to attack the minute growths when they germinate in the spring. Two applications should be given, one after pruning is finished, before the ground is dug, and another in the spring, before the first hoeing takes place. About one and a-half ounces to the square yard should be sufficient at each application if the crystals are very finely ground and the distribution is thoroughly and evenly carried out. It is only necessary to spread this as far as the boughs reach, and not all over the ground.

By a judicious and careful use of any or all of these various methods it is possible to keep the nasty disease within bounds, though none of them at present can be said to be capable of entirely stamping it out.

Brentwood, Essex.

F. HAMMOND.

pink flowers. But in time the tufts grow together and form a hoary carpet, as seen in the illustration, covered with flowers, a very attractive plant worthy of a place in the most select garden. *A. suberosa* is one of the choicest members of this family, of which perhaps the best known is the Woodruff (*A. odorata*), a great favourite in many gardens for planting in shrubberies or Fern borders, where it can run about without restraint. Another choice little species is the Pyrenean *A. hirta*, which also makes a carpet. It is rather taller than the Grecian plant, with paler pink flowers produced during the same period. Our native Squinancy-wort (*A. cynanchica*), which is found on the chalky downs, is also worth a place, for it has a neat, prostrate habit, with numerous pale pink flowers. Of the annual members of this genus, the best is *A. azurea* from Syria, with blue flowers on branching stems about one foot in height.

The cultivation of *A. suberosa* and *A. hirta* presents no difficulty. They prefer a warm, sunny position and to be planted in very gritty, well-drained soil. A ledge well up to the level of the eye is the best place, for then it can be seen to advantage. For *A. suberosa*, which, owing to its woolly foliage, suffers somewhat from damp in winter, it is necessary to have a piece of glass raised just above the plant to throw off the

consider themselves surpassingly rich with a few barrowfuls of such things, and because of the difficulty of obtaining stone in small quantities in town or suburban districts. These, too, are tolerated for their pleasure-affording attributes by that rather large group of amateurs who to-day do their rock gardening in the space of a few feet. To such as these they are invaluable, and they have their own ideas of making them a success.

Where Failures Occur in the use of such things is more frequently the outcome of the cramped pocket arrangement—it too often constitutes a sort of water-tight compartment—of a few inches deep, out of touch with everything save for the small parcel of soil the pocket itself contains. For the amateur is not content to use cement to hold the erection together; he takes considerable pains to ensure that the roots of the plants do not escape from their allotted holding. All this is, of course, wrong, immeasurably so, and when we remember the liberty-affording crevices of natural rock it is a matter for surprise that the plants exist at all. Some plants, however, are capable of an existence even on the driest wall-top, and these and their sturdiest kinsmen are those best calculated to endure.

How Alpine Plants Root.—This phase of the subject is so intimately interwoven with the question of suitable and unsuitable rocks that a few remarks *à propos* at this juncture will not be out of place. Reference has already been made as to the value of crack and cranny and crevice, and if we imitate Nature at all, no matter how feebly, we must do so in this. Not a few alpine plants send their root-fibres down to almost incredible depths in their native habitats, the crevice itself being a larder filled with the choicest foods. Thus a splendid tuft may appear to exist on the merest ledge, of rock, though its root-fibres meanwhile may be in a deep crevice yards away. In the great rock garden at Friar Park this phase of the subject has been fully appreciated, and whether the rocks be of huge proportions or of quite ordinary size, the packing of crevices with material of suitable description ever receives studious care. Hence, as a result, is there so much of that "art which doth mend Nature." In like manner, just as the Friar Park example endeavours to imitate Nature, so might the builder of even the smallest rock garden do in this particular, viz., the forming of crevice or cranny for the reception of certain classes of plants. 'Quite a large number of plants do well enough and grow into free-flowering masses when planted in the ordinary way, though there are others—and they constitute a by no means inconsiderable number—that are best otherwise—best because of the improved possibilities for their natural display, best as an aid to their longevity and comparative immunity from slugs, and not least because Nature apparently intended for her richest jewels a setting apart from the rest.

E. H. JENKINS.

(To be continued)

IRIS KÆMPFERI.

(SYN. I. LÆVIGATA.)

THE illustration that accompanies these notes will afford some idea of one of the many beauties that are to be seen at the Wisley Gardens of the Royal Horticultural Society. This Iris thrives remarkably well there, and the success achieved indicates in some degree its requirements. To start with the soil, this is not in any sense of a heavy or retentive character; hence it is quite at home near to, and frequently in direct touch with, the water, but slightly raised in most instances above the average level of the pools. This fact should not mislead intending planters into thinking that the same treatment will suit in every instance. If planted, say, in a heavy loam with a tendency to clay, the surrounding soil being possibly to some extent water-logged, it will be much safer to keep the plants somewhat higher out of or above the water, and do what is most essential in our opinion—provide for drainage prior to planting, so that the water passes away from the roots. With this Iris, as with many other plants, it is a question of soil and water in combination more than anything else. A cold, stagnant soil is most harmful. This Iris cannot tolerate such a state. Warmth is most essential; this it gets at Wisley in the

NEW USES FOR LIME IN THE GARDEN.

MODERN science has been busy with liming experiments during recent years, and has now shown that lime has functions to perform which are out of the run of those usually and formerly associated with it. Nitrification, for example, has been found to require an alkaline condition, and it is probably largely due to lime that this has been brought about when sulphate of ammonia has rendered the ground absolutely poisonous to plants through acidity. Another and more interesting development in the use of lime of late years has been in the direction of finding out what plants are specially benefited by its use, or even injured, for the latter has been found to be the case with several plants, strange though it may sound. A notable instance of this has long been known in Spurrey, which increases where the lime goes out of the ground, and the same antipathy has been found by experiment with Sorrel. Serradella and blue Lupine, again, have been found to be injured by liming, in the case of Lupine after each of three successive experiments. Gladioli, also, and Red-top have been injuriously



IRIS KÆMPFERI AND WATER LILIES IN THE ROYAL HORTICULTURAL SOCIETY'S GARDENS AT WISLEY.

sunny positions the plants occupy. So it is at Clandon Park—the Earl of Onslow's—where they thrive splendidly by the margins of the lake, but in sunny, warm situations. In Japan these Irises are grown on low-lying ground, where, when needed in the hot weather of that part of Japan, they can be irrigated as occasion may arise; but this is far different from growing them in this country only slightly above the water-level. It is a great pity that this lovely Iris is not grown more than it is. It is a sun-loving plant, and one that delights in an abundance of water during growth, but the soil should be sweet and porous, all the same. ANGLO-JAP.

affected. More useful, perhaps, are the experiments on Grasses which have been made in America, which indicate that the needs of these plants are not all similar, even the commoner sorts showing a difference, though the results are only the fruits of two years' experience. Timothy, Awnless Brome Grass, Smooth Meadow Grass and others may, it seems, be benefited by liming, and in various degrees; but Sweet Vernal, Soft Grass and an American variety show less benefit or none at all. Indications, in fact, suggest the probability that individual Grasses show just as great an inclination or aversion to liming as do those of leguminous

plants, Melons and other families which have been experimented on.

Water Melons, for example, showed distinct injury from liming, the second year more than the first; while, on the other hand, the Musk Melon would only flourish where the lime was. In the same way garden vegetables have varying capacities for appreciating lime, and none of those experimented with, which included most of the common vegetables, as well as Dandelions, showed a dislike to liming, though the benefit was not at first apparent in one or two cases. A multitude of good effects on plant-life and soil fertility are now, in fact, found to be due to lime, which might almost be termed the universal solvent of the soil.

GERVAISE TURNBULL.

THE GREENHOUSE.

A NEW PERPETUAL-FLOWERING CARNATION

ROSETTE is the name given to a new and beautiful Perpetual-flowering Carnation with rosy cerise flowers. The new-comer is of good constitution and blooms freely. The flowers are illustrated as grown, having been photographed from a plant in a 4½-inch pot shown by Messrs. Stuart Low and Co., Bush Hill Park, Enfield, at a recent meeting of the Royal Horticultural Society. The flowers are refined and of perfect form, and, above all, the calyx is sound. Rosette is bound to become a general favourite as soon as its many virtues are known.

STOCKS FOR THE GREENHOUSE.

Stocks grown in pots for flowering in the greenhouse in springtime are more appreciated every year. The experienced cultivators know which plants to retain and which to discard when aiming at the production of a majority of double flowers on strong stems. The inexperienced growers do not, and therefore they generally select the strongest plants possessing long, green leaves, and throw away, what appears to them, to be the poorest plants. Those specimens most likely to bear double flowers possess rather short, rounded leaves of a blue-green colour, and are not as gross-growing as the others. They are quite as strong, really, as the stems are thicker and shorter-jointed, the central spike being, as a rule, a strong one and the side branches short, bearing from three to five or seven double flowers. Well-grown plants of the intermediate section bearing single flowers are lovely, fragrant and effective at a season when such flowers are scarce.

The plants should be placed under glass before the end of November. They are best when grown under cool conditions while very young, as any attempt at forcing them only weakens the plants. When the really cold weather, with occasional

frosts, comes, the plants are best placed in a greenhouse from which damp and frost can be excluded. Keep them near the glass on a stage or shelf away from the hot-water pipes. Give water carefully, never allowing the soil and roots to get dry nor keeping it and the roots in a saturated condition. Feeding should not commence until early in February.

G. G.

HOW TO PRUNE PLUMBAGOES.

THE Plumbago is one of the best of climbers for an amateur to train under the glass roof of his greenhouse or conservatory. Directly the flowers have faded and many basal leaves have also



CARNATION ROSETTE. A REFINED PERPETUAL-FLOWERING VARIETY.

shrivelled on the current year's shoots, some pruning must be done. It is a mistake to prune hard back at this time. Leave about nine inches of stem, and then prune to within 1 inch of the base about Christmas-time or early in January. So treated a check is not given to the plant, and the basal buds swell up nicely.

When the first pruning is done, lessen the quantity of water at the roots considerably, and from the middle of December to the first week in February cease watering altogether. At the latter period give a thorough soaking after clearing away any loose surface-soil and then apply a top-dressing of lumpy loam, leaf-soil, rotted manure and sand. SHAMROCK.

THE FLOWER GARDEN.

SOME GOOD CHEAP TULIPS.

READERS may remember an excellent picture of the double Tulip Murillo in the September Bulb Number of THE GARDEN, and that the writer of the note which was published with it seemed very surprised—it evidently had been given him along with some others—to find for how small a sum such a treasure could be bought. He thereupon made an appeal to me to furnish a list of some of the best varieties that

may be purchased at a correspondingly low figure. I have no difficulty in responding to his invitation, for although the writer above mentioned almost seemed to think that it might be so, neither the beauty nor the utility of a Tulip can be gauged by its price. Undoubtedly in the early days of their introduction, or upon their discovery by the flower-loving public, varieties such as Clara Butt and Le Rêve (yclept of old, Hobbema) command fairly high prices for some little time, yet their power of increase is such that before very long they get the better of the demand, and then sadly, but necessarily, the dealer marks them down. The few "old stagers" that always remain expensive are those which increase but slowly, such as Chameleon, Zomerschoon, Columbus (French Crown), Ada and Louis XIV.

As the picture of Murillo showed it growing in a garden, I imagine what is wanted from me is a list of cheap varieties that are especially suited for borders or for bedding. For convenience of reference it will be well to take them in the order in which they are usually placed in catalogues; and, furthermore, to carry out the intention of this note I have fixed a shilling a dozen as the limit beyond which I will not go, except in two or three instances, which will be duly noted.

Early Singles.—The varieties selected have longer stems than many, and, to my thinking, have a more taking appearance than the short, stiffer-looking ones. Couleur Cardinal. — I have seen this offered at 1s. per dozen this year, but generally it is about 1s. 6d.; however, so highly do

I think of it that I have not hesitated to include it; deep blood red, outer petals flushed rich plum. Duchess of Parma, orange and crimson, lovely under electric light; Dusart, rich red; Fred Moore, a darker form of the well-known Thomas Moore—goes so well as a dot plant among yellow and orange Polyanthus; Keizerskroon, bright red and yellow, a little "loud" unless carefully placed; Prince de Ligny, a particularly graceful yellow; Prince of Austria, tall red orange, a wonderful laster, and as it becomes more orange with age, almost may be said to give two displays. There are, and have been, great flowers and great fruits. This, surely, is one of the great flowers. Scarlet Mammoth, really

a midseason bloom, a square-shaped flower borne on a medium-lengthed stem and of such intense brightness (red) that one wants blue spectacles to look at a big bed of it in full sunlight; Stanley, a delightful carmine rose; Van Gooyen, a tall Cottage Maid, but oh! such foliage—powdered apple green is a hint of what it is like; Vermilion Brilliant, an early brilliant and very reliable red; White Hawk—sometimes I like White Pottebakker rather better, sometimes White Hawk. This latter is a trifle later to bloom, and has somewhat crinkled petals.

Early Doubles.—Murillo: Under the circumstances it goes without saying this must be included. The accompanying illustration shows a large bed of 500 bulbs as it grew this last April in Mr. Carruthers' garden at Eden Grove, Carlisle. I always say, "Give me a big enough mass of almost any one flower and the effect is good." Very likely this gentleman has filled up this bed already for next year's show; but if not, and if he should want a real bright spot in the spring,

time comes round. Bouton d'Or, a deep yellow that becomes fat and well-looking with age; Didieri alba, a pure white of the lean kind; Fairy Queen, an æsthetic lady in a gown of slaty lavender and canary; gesneriana major (or spathulata), a magnificent crimson with such a base of dark blue; Golden Crown, a dissolving view effect, first yellow, then red; Inglescombe Pink, a pretty delicate lavender pink; Isabella, buff edged, and finally flushed all over rose, a dwarf grower; mauriana, scarlet, with a pure yellow base, late and lasting; Orange Beauty, a massive orange red, also on the late side; Parisian Yellow, a good reliable yellow; Picotee, a graceful plant, white, edged rose; and strangulata, a lovely primrose, rather dwarf (see THE GARDEN for October 19).

Darwins.—Prices rule higher in this section, so I have had to put another sixpence on to my limit of a shilling. The twelve varieties that I have selected are a good representative collection, but to get them I have had to stretch my second limit in the case of Mr. Farncombe Sanders (about 2s. 6d.),

THE ROSE GARDEN.

NOTES ON NEWER ROSES.

HYBRID TEAS FOR EXHIBITION.

(Continued from page 568.)

Leslie Holland (Hugh Dickson, 1911).—I do not think the season has suited this Rose. That it is one of the finest Hybrid Teas of its colour we have, anyone who has seen the numerous flowers of it staged throughout the last three or four years by the raisers cannot doubt. It is a good grower, but not vigorous like Hugh Dickson, and should on that account make an excellent Rose for bedding. It is very free-flowering throughout the season, and in this respect will supply a long-felt want, as there is not a really good crimson bedding Rose, Hugh Dickson's habit of sending up long shoots 6 feet or 7 feet high preventing us from calling it an ideal bedding Rose. I well remember the box of twelve staged at the Luton Show, where it was awarded the gold medal, and



A BED OF TULIP MURILLO IN A CARLISLE GARDEN. IT IS A BEAUTIFUL DOUBLE-FLOWERED VARIETY THAT CAN BE BOUGHT CHEAPLY AND PLANTED NOW.

might I suggest a trial of the before-mentioned Scarlet Mammoth as a somersault contrast to the quiet tone of Murillo. Two other good cheap doubles occur to me—Rubra maxima, a deep red; and Salvator Rosa, a reliable and pleasing semi-double rose and white.

Cottage Tulips.—If we ransack all the catalogues that come to hand, we will find a pretty wide choice of fine things. Most varieties increase quickly and, let the demand be ever so much greater than it is even at present, they will be able to keep pace with it, and we need not fear any huge increase in prices. By the aforesaid process I think I have been able to select what I feel sure all who know them will agree with me in calling a very nice dozen. Before I give the names let me implore the owner of every garden who has a border with a few unfilled spaces still going begging, and who has never grown either Cottage or Darwin Tulips, to give them a trial next spring. A few clumps with, say, six bulbs in each would not be a ruinous matter, and would be much appreciated when flowering

but it is such a distinct and glorious bit of colour that I could not omit it. The first time I ever got among the Darwins in Holland I well remember how this tall variety always stood out from all others in height and brilliance. Baronne de la Tonnaye, a good type of the rose-edged pale pink varieties; Clara Butt, the most popular of all, salmony pink, not so tall or large as many others; Dream, a pretty pinky mauve; Harry Veitch, deep blood red; King Harold, splendid maroon red; Loveliness, clear rose; Mme. Bosboom Toussaint, 156-4 in the Colour Chart, carmine; Margaret, blush pink; Mr. Farncombe Sanders, a grand rosy crimson; Pride of Haarlem, old rose colour, very large flower; White Queen, the nearest approach to a white among the Darwins; and Zanzibar, a most reliable deep maroon, very dark. Tulips are far more accommodating about being planted than Daffodils, and if they are bought at once and planted before the end of November, they are sure to give a good account of themselves.

JOSEPH JACOB.

I have seen it in even better form on other occasions, notably the nine that won first prize at the "National" for any new Rose. All exhibitors I expect have got it, but if they have not they should obtain it, as a good flower of it will attract attention to any box, be it a six, twelve or a twenty-four.

Lieutenant Chaure (Pernet-Ducher, 1910).—The parentage of this Rose does not read very temptingly, Etoile de France not being exactly one of this raiser's "great" Roses; but the Rose under notice has none of the faults of its parent, and with me has been quite a good Rose. I have had flowers of it very much like Hugh Dickson, except that the white line which nearly always appears down the centre of one or more of the outside petals of Hugh Dickson was absent. I believe the other parent was Liberty; in any event, the offspring seems to have missed the bad faults of both of its parents, as it is a better grower than Liberty and a freer flowerer and much better "opener" than Etoile de France. I have only

one plant of it, so cannot write definitely; but I think I can recommend it sufficiently to say, "Try it."

Mabel Drew (Alex. Dickson and Sons, 1911).—This firm's 1911 set I have already referred to. It contains one Tea and ten Hybrid Teas, and of the ten Hybrid Teas I think I should place Mabel Drew on top as the best exhibition Rose of the series. It won the gold medal at the Salisbury Show in 1910. It is difficult to find a fault in this Rose. It keeps its colour well—deep cream—holds its flowers erect, and they are of excellent shape and with fine smooth petals. It is sweetly scented and a good grower, and altogether a Rose that the raisers can justly be proud of. I have seen no mildew on any plants this year, although plants close by had it badly. Certainly one of the best of the new Roses. Strongly recommended.

Margaret (William Paul and Son, 1909).—I am very fond of this Rose. Its delicate colour and shape have always appealed to me since I first saw its blooms at a Royal Horticultural Society's Temple Show some four or five years ago. It is a Killarney-like flower, yet distinct from that variety. Growth and habit good without being vigorous. Free-flowering, and with me nearly exempt from mildew. A good-shaped flower is very telling in the front row, from which remark it will be gathered that there is not much weight about Margaret. She is of the "sweet seventeen" rather than the "fair, fat and forty" stage that appeals to so many.

Miss Cynthia Forde (Hugh Dickson, 1909).—Another Rose that is on the border-line between exhibition and garden. That it has possibilities in the first class is proved by the fact that a bloom of it shown by the raisers secured the silver medal at the last autumn show of the National Rose Society for the best Hybrid Tea in the show. It is a brilliant rose pink in colour, with distinct claims to be reckoned the best flower of its colour for the garden. Very free-flowering throughout the season, good habit of growth, nearly mildew-proof, if not quite, delicately perfumed, altogether one of the best Roses that Messrs. Hugh Dickson have given us. A pink Antoine Rivoire is, I see, a note I made of this Rose when first seen some five years ago in the raisers' nurseries, and that is not praising it too highly. As a bedder I am inclined to put it before Caroline Testout or Lady Ashtown. Gold medal at the National Rose Society's autumn show, 1909.

Mrs. Arthur Munt (Alex. Dickson, 1909).—A Rose that I have expected to see more of. It had very bad luck in not obtaining a medal. It is a good reliable flower of ivory white tint, not quite so large as some of the giants, but a delightful Rose in shape and delicately Tea-scented. Nearly mildew-proof, and a good grower without being too vigorous.

Southampton.

HERBERT E. MOLYNEUX.

(To be continued.)

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Begonia Emita (B. socotrana × B. Pearcei seedling).—A novelty and an acquisition at the same time. It is quite distinct from all other of the B. socotrana crosses, more particularly in colour, which is a great gain. The flowers are large, of pale tawny orange shade, the buds of a deeper shade.

Begonia Optima (B. socotrana × B. single orange scarlet).—This is of clear salmon pink colouring, of a somewhat looser habit of growth than the last. Both were raised and exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

Carnation St. Nicholas.—One of the Perpetual-flowering class, a flower of large size and crimson-scarlet in colour. The variety is apparently of the American type, *i.e.*, with more or less serrated petals, and is endowed with slight perfume. From Messrs. Stuart Low and Co., Enfield.



FLOWERING SPRAYS OF HOHERIA POPULNEA, A RARE NEW ZEALAND SHRUB.

Chrysanthemum Queen Mary.—A huge spreading white flower of remarkable proportions. From Messrs. W. Wells and Co., Limited, Merstham.

Chrysanthemum Miss A. E. Roope.—A gloriously rich golden yellow of the Japanese incurved class. A variety of distinction and merit, and handsome withal.

Chrysanthemum Hector Menzies.—A very handsome single yellow-flowered variety of considerable attractiveness. These two were from Messrs. H. J. Jones, Limited, Lewisham.

Chrysanthemum Portia.—A large single-flowered variety of chestnut red colour, the florets having a yellow base.

Chrysanthemum Snow Queen.—A new type of the Anemone-flowered class, in which the huge

cushioned centre and short florets of the old type are replaced by a singularly small-cushioned centre and large strap-shaped white florets. These were sent by Messrs. Cragg, Harrison and Cragg, Heston, Middlesex.

Chrysanthemum Mr. Leonard Harrison.—A large single, the florets coloured a reddish crimson, with buff reverse. From Mr. L. F. Harrison, East Grinstead.

Nephrolepis exaltata Willmottæ.—Yet another addition to that remarkable class whose earlier plumose character appears now to be obscured in a moss-like density, a density, too, that has followed on in a sort of consistent graduated order from the beginning. The series constitutes quite a unique chapter in evolution, and should interest the plant physiologist exceedingly. Shown by Messrs. H. B. May and Sons, Edmonton.

Hoheria populnea.—A rare and beautiful New Zealand flowering shrub, having white Deutzia-

like flowers in axillary and terminal clusters. The anthers and filaments also are white. The shining leaves are ovate-acuminate, crenately margined, dark, almost olive green, hard and coriaceous to the touch. Not quite hardy except in the warmer west and south-western counties. (See illustration.) From Mary Countess of Ilchester, Abbotsbury Castle.

NEW ORCHIDS.

The list of new Orchids to gain awards at the exhibition of autumn-blooming Orchids is an exceptionally long one, some of the novelties being uncommonly beautiful and of great value.

FIRST-CLASS CERTIFICATES.

• *Odontoglossum Aurora*, shown by Messrs. J. Veitch and Sons, Chelsea; *Odontioda Bradshawiae gattonensis*, from Sir J. Colman, Bart., Gatton Park; *Lælio-Cattleya Orion Othello*, shown by Messrs. Charlesworth and Co., Hayward's Heath; and *Vanda cærulea Lady Holford* and *Cattleya Peetersii Westonbirt* variety, from Lieutenant-Colonel Sir George Holford, K.C.V.O., Tetbury.

AWARDS OF MERIT.

Brasso-Cattleya Hyea and *Cattleya Oberon*, from E. R. Ashton, Esq., Broadlands, Camden

Park, Tunbridge Wells; *Odontoglossum eximium McBean's* variety, exhibited by Messrs. J. and A. McBean, Cooksbridge; *Cypripedium lathamianum* × *insigne Chantinii*, from J. G. Fowler, Esq., Glebelands, South Woodford; *Cattleya Rhoda The Jewel* and *C. Venus Princess*, from Messrs. Charlesworth and Co., Hayward's Heath; *Lælio-Cattleya Walter Gott*, shown by Messrs. Sander and Sons, St. Albans; and *Cypripedium Muriel*, *Cattleya Fabia Gloriosa*, *C. F. Sunset*, *Lælio-Cattleya Golden Fleece* and *Cattleya hardyana La Perle*. These five beautiful novelties were all sent by Lieutenant-Colonel Sir George Holford, K.C.V.O.

The foregoing were shown before the Royal Horticultural Society on November 5, when the awards were made.

GARDENING FOR BEGINNERS.

HOW TO REPOT CATTLEYAS.

CATTLEYAS, *Lælias*, *Brassavolas* and their numerous hybrids should be repotted when root-action begins, and the best time of all is when a fresh batch of roots are seen pushing from the base of the current year's growth or nearly-developed pseudo-bulb. In Fig. 1 is shown a plant turned out of its pot, and new roots can be seen at the bottom of the last-made growth. A careful watch is advised, so as to carry out the operation before the new roots grow too long; but an observant cultivator will soon be able to just anticipate their appearance and have

his plants repotted so that they immediately enter the new compost. Annual disturbance must not be practised, so sufficient space ought to be left for at least two seasons' growth. The object of repotting an Orchid should be to provide additional root-room; but this does not always mean that a larger receptacle is necessary. The contrary is occasionally the case, while a pot of the same dimensions is often used. To the novice or beginner this may at first sight appear paradoxical, but when it is explained that a number of the back pseudo-bulbs are useless and must be cut off, the practical idea will at once be grasped. Three or four behind each lead or growing point are ample, and there will be no need to disturb the front portion of the plant to any great extent. One reason in favour of Orchid-growing is that the vitality and flowering capacities of the plants can be re-

tained without their taking up any more stage room, unless the species or variety is worth increasing, when the old bulbs can be repotted, as shown in Fig. 2, to see if they will form a shoot from one of the dormant eyes. There is, however, one other reason for repotting, which occasionally happens in collections where the most skilled men are employed. This is when a plant becomes sick and nearly all its roots decay. The only method to adopt is to wash away all the old soil and dead roots, and place it in a pot just large enough to take the bulbs; but plenty of drainage is essential, while it must be kept firm by a neat, green stick, when, with constant attention, it generally recovers.

Potting Compost.—The most popular rooting medium, and one that will give good results, is as follows: *Osmunda* or *Ar* fibre, good fibrous peat and chopped sphagnum moss in equal parts,

with enough crushed crocks or silver sand to render the whole porous. As each year passes it becomes more difficult to secure peat of suitable quality, and where the best cannot be obtained, *Osmunda* fibre should be chosen instead. Ordinary flower-pots are recommended, which are filled one-fourth of their depth with drainage, over which is arranged a thin layer of sphagnum moss to preserve a free outlet for water. Teakwood baskets and pans with side holes are sometimes associated with Orchid culture; but these are quite out of date, and no successful grower selects them for Cattleyas and similar Orchids. When repotting, the

HOW TO PLANT AN APPLE TREE.

THE planting of a fruit tree seems a very easy matter indeed. Make a hole, put in the roots and cover them with soil. Many inexperienced cultivators think this is all that is necessary. The way in which the work is done, however, is the all-important thing. In the first place, the hole should be made quite 6 inches wider all round than the spread of the roots. It must not be made too deep, and the subsoil should be forked up also. If the soil is clayey, the roots of the tree should be nearer the general surface than in the case of a light soil,

and be covered with the usual quantity of soil, which will come a little above the surface. This will tend to keep the roots drier and warmer in winter in the clayey loam. Work the soil well in among the roots, make it moderately firm, and duly stake the tree. B.

REPOTTING LILIUMS.

THE *Liliums* will make moderate growth, even when the bulbs and their roots are retained in small pots, if ordinary care be taken in the application of water and in the cleanliness of the foliage. If, however, the plants are duly repotted, the results are, nearly always, very satisfactory. Of course, the best results are obtained when the bulbs are first potted low in the pots with a view to a future repotting. In all cases this is not done; but where it is not, repotting must be carried out. This work can be attended to now in cases where

the plants are so advanced that roots are beginning to grow from the stems just above the soil. The plants must be potted in a mixture of old fibrous loam, sweet leaf-soil, rotted manure and sand. The loam must be lumpy, but, of course, of convenient size for potting purposes. Press the compost down with the fingers, not with a potting-stick, and provide good drainage. Afterwards water with care, and be sure that the plants are not checked by being kept in too cold a temperature.

The Repotting of Old Bulbs.—Old bulbs that have rested and now show new growth must be repotted in rather small pots. Clear away very carefully the old soil, dead scales and roots, and then pot the bulbs low down in the clean pots. Leave the pots for a time in a cold frame just safe from frost.

AVON.



1.—CATTLEYA PLANT READY TO BE DIVIDED AND REPOTTED. NOTE THE LITTLE WHITE ROOTS.

2.—THE SAME PLANT DIVIDED AND REPOTTED INTO TWO POTS OF DIFFERENT SIZES.

last-made pseudo-bulb should be as near the centre as possible, and so arranged that when the operation is completed, the surface of the soil will be on a level with the rim of the receptacle. Press the compost fairly firm and allow the growing point to rest on the top, for it is fatal to cover it to any depth; and when the loose particles are neatly clipped off with a pair of scissors or shears, we get an example similar to the one in the second illustration. A thorough watering is now given to wet the whole of the soil, and if the surroundings are kept moist by occasionally damping the stages and paths, no more will be required for a week or two. As growth advances and root-action increases, water may be applied more frequently till the bulbs are fully matured, when water is needed in less quantities; but the pseudo-bulbs must not be allowed to shrivel through lack of moisture. SENTINEL.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Herbaceous Borders.—When planting a new border it is advisable to stake out the positions where the principal subjects are to be placed, ranging them according to their height and allotting their space according to the habit of the plant. With the large-growing perennials the planting in clumps of three, triangularly, has much to recommend it, as one gets a bolder effect without undue overcrowding. Old clumps should be divided by placing two forks back to each other and pulling apart; this is much to be preferred to chopping with a spade. Select the outer portions, not too large, and plant firmly. Label the plants as the work proceeds, and leave the surface soil level and neat. Give the border a mulching of leaf-mould or spent Mushroom-bed manure.

Echeverias.—These in variety are excellent for edgings to the flower-beds in summer, and the plants must be protected from frost during the winter months. *E. metallica* is almost hardy, and we simply build this up with soil in rows against the wall of a greenhouse, commencing with the largest and sloping towards the top, finishing with the smallest offsets. *E. farinosa* and *E. secunda glauca* are much less hardy, and are best placed thickly in boxes of soil and stood in a cool but frost-proof house.

The Shrubberies.

Tree Pæonies.—The named varieties of these are beautiful objects when in flower, and comprise single and double flowering varieties of almost every shade from white to deepest crimson. When planting, choose a position so that the flowers are not caught by the early sun, as this, when the buds are opening and late spring frosts prevail, is apt to injure them. Enrich the soil with abundance of good farmyard manure, as, where the plants are put, there they ought to remain, for they resent frequent disturbance at the roots.

Japanese Maples.—Several of these, in addition to their charm when unfolding their delicate foliage, are grand in the autumn. When planting, choose well-drained ground and not too heavy in character. These shrubs, like the Pæonies, are apt to get touched with late frosts, so should be planted in a somewhat sheltered place. A variety named *Osaka-suki* turns a brilliant colour.

Berberis Thunbergii.—When planting shrubs, this subject should not be overlooked. Whether on the rock garden or in the shrubberies, it is one of the very earliest to denote the approach of autumn. It will thrive in practically any soil and any position, and a restricted root-run, though stunting growth, only seems to intensify its colouring.

Plants Under Glass.

Mosehosma riparium.—For cool greenhouse decoration at this season a batch of these plants are indispensable, the blush white flowers harmonising with almost any other subject, while the flowers are well suited for button-holes. A few plants, when flowering is over, should be reserved for a supply of cuttings.

Strobilanthes dyerianus.—This plant requires a warm greenhouse to grow it successfully. It is a striking foliage plant, very easily raised from cuttings, and, grown in small pots, is fine for groups or indoor decoration.

Bulbs.—Those placed out of doors under ashes or fibre must be examined occasionally, and those forward enough transferred to cold frames. Before bringing them into the greenhouse well wash the pots.

Cacti.—These will be much better if kept quite dry for a month or two and the structure or surroundings kept as dry as possible. Give a little air to the house on all favourable occasions.

Fruits Under Glass.

Peach Trees.—To maintain a fruitful tree, thin out the growth, doing away with the older wood and retaining as much of the young wood as possible, as it is on this growth that next year's crop will be formed. Lay in the wood as evenly and straightly as possible, and neatly tie it into position. Always endeavour to keep the base well furnished with young wood.

Ventilation.—While fruit trees are dormant, whether Vines, Peaches, Cherries, or other kinds,

they are greatly benefited by an abundance of ventilation, and when there are no other subjects in the same house to be studied, leave the ventilators open day and night, and have a slight circulation of heat in the pipes to prevent any injury from hard frosts.

The Hardy Fruit Garden.

Now that the leaves are all off, any work, such as pruning or planting, need not be delayed. If the positions are not ready for the trees, the latter should be obtained and heeled in, and, if the roots are well protected, they will take no harm. What type of fruit tree to purchase is often a question, but depends upon the position one has to fill in the garden. The pyramid or bush trained is the one usually most suited for small gardens, being very reasonable in price, and if maiden trees are bought, these soon grow into bushy specimens, are easily transplanted, and come into bearing at an early age. If one has a wall, a few cordons will give fine fruit, also if planted on an arch or pergola. The foregoing remarks apply especially to Apples.

The Kitchen Garden.

Celery.—If the weather promises to be frosty, lift a few heads and store where they are easily accessible.

Mustard and Cress.—Seeds should be sown in shallow boxes on fine soil pressed down and well watered with a rosed can, preferably before sowing. Cover with a piece of board or slate to keep quite dark, and stand in a warm house or Mushroom-house. When germinated, remove to the light.

Mushrooms.—If manure is obtainable, continue to collect and prepare for forming successional beds. A little of the shortest straw will do no harm, but the longest should be placed on one side. Keep the temperature of the structure between 55° and 60°. Avoid too much fire-heat and keep a look-out for slugs.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Roses.—The planting of nursery Roses should now be proceeded with and finished as soon as possible. For choice, moderately strong plants are to be preferred to either weakly or very strong ones. Sometimes they are planted overdeeply to save staking, but for all the labour involved in steadying each plant with a stout stick, it is not worth while risking its future. Some Fern fronds worked among the shoots will save them from frost-bite.

Carnations.—Those planted out two months ago are now quite established, and if the surfaces of the beds have not been loosened since planting, let them be stirred up now, and any extra strong plants should each be tied to a short stake. Dust the plants and beds thickly with old soot, and see that neither ground nor feathered game can reach them. Those in pots in frames will need no water at the root till about the end of January at the earliest.

Ranunculus.—A portion of the stock may be planted now, being careful in planting not to break the claws. The French is perhaps the most useful section, and also the hardiest. A rather highly-manured, well-worked soil is essential. From 3 inches to 4 inches is deep enough to set the tubers, and they need not be more than 4 inches to 5 inches apart.

The Wild Garden.

Bulbs.—Any additions to be made may be completed at once of Bluebells and the white variety, Solomon's Seal, Dog's-tooth Violets and other common things. The handsomest of all early-flowering bulbous plants is the Crown Imperial, both yellow and red, yet it is very seldom seen. A stock can be raised from home-saved seeds when a few old plants are established.

Foxgloves.—Where these are already established it will be necessary to thin the seedlings to allow those left to strengthen to flower. New plantings may now be made, being very careful not to set the plants in lines. Foxgloves look best with a

backing of shrubs, and suitable positions should be looked out for new plants. The pure white is perhaps the finest form of all.

Climbing Roses.—Advantage should be taken of any rather bare dwarf tree or other suitable object to put in one or more Roses to climb upon it and clothe it with beauty. Queen of the Belgians, Crimson Rambler, The Garland, Elise Robichon and Dorothy Perkins are a few that will succeed. Other Roses worth introducing include varieties of *Rosa rugosa*, *arvensis*, *alpina pyrenaica*, *rubrifolia*, Scotch Roses and Briars. All these are best left alone when once established, the heaps of most of them being as fascinating as the flowers.

The Plant-Houses.

Plumbago rosea.—This is one of the choicest plants at present in flower. Unfortunately, it requires a stove temperature throughout the winter, and, consequently, those who would like to utilise plants for the greenhouse or for decorating apartments should remember they risk losing them. Water copiously with manure-water, and the plants will continue flowering for a long time.

Thysicanthus rutilans.—This is a charming old stove plant which produces very long, drooping sprays of flowers. It flowers at this time and requires hothouse treatment. The clear blue *Eranthemum pulchellum* asks for similar treatment.

Eupatorium micranthum.—Not quite so hardy as *E. riparium*, this is a more useful plant, cut-over specimens being very acceptable at this time of the year onwards. The flowers are gratefully scented and last a long time in a cut state.

Smilax.—Practically hardy, a look-out should be kept for aphids, which is apt to attack the sprays during the winter season. Syringing with warm water strengthened with extract of Quassia, or fumigating with nicotine, is imperative on its first appearance, otherwise the foliage may be spoiled if the aphids are allowed to spread unrestrained. Our stock is grown in narrow borders, and receives no water at the root during the winter.

The Fruit-Houses.

Strawberries.—The pots should now be stored for the winter in cold frames, first cleaning the surfaces of all extraneous matter. Bring the plunging material well over the pots as a means of preserving them from fracture during frost. The frames need never be quite closed unless during intense cold. Mildew sometimes appears on Royal Sovereign, and it may be judicious to dust all the plants with flowers of sulphur as a preventive.

Pruning Vines.—As soon as the foliage drops from Vines cleared of their crop they should be pruned, at the same time cutting away all snags that may not have been removed during summer—the proper time for doing so. If the rods cannot be washed forthwith, examine the borders lest they become over-dry, and if necessary apply a moderate quantity of manure-water.

Young Vines.—Those prepared for planting and now matured should be cut back to the length required. Usually 2 feet in length is sufficient. Store them meanwhile in a cold house where there is no fear of the least excitement to grow at the root. If there are no means of keeping out frost, the pots should be plunged well over the rims in some dry, non-conducting material to preserve the roots in an equable temperature and to keep them from being frozen.

The Vegetable Garden.

Broccoli.—In localities subject to intense frost, the old practice of lifting Broccoli and laying it in with the heads away from the sun, and also covering the exposed stems with earth, is one that can be recommended. A less laborious operation consists in cutting the roots with a spade, the middle of each row being deeply pierced with the tool. Now is the time to employ these simple precautionary means.

Brussels Sprouts.—Some growers remove a large portion of the side leaves, an unnecessary proceeding usually. At the same time, it is a mistake to have broken foliage and leaves that have yellowed naturally left about the quarter. Remove all such, and it may also be necessary to stir the ground about the plants with a fork. Little things such as this have a peculiar effect on the health, vigour and lengthened production of the plants.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

THE KITCHEN GARDEN.

SEASONABLE NOTES ON VEGETABLES.

Chicory Salad.—To those who find Dandelion rather too sharp, one can strongly recommend Chicory as a winter salad of beautiful appearance and excellent flavour. To produce suitable bleached leaves, the tap-shaped roots are packed closely together in deep boxes with a little soil between. The boxes are placed in some dark, warm, moist position, where the leaves that are so much appreciated will quickly push up. In gardens where a demand already exists, there will be an ample supply of roots from seeds sown in the spring; but, failing that, it will not be either difficult or expensive to purchase the number wanted.

Stored Roots.—All Beetroots and Carrots ought now to be stored. This must not be interpreted to mean that they are to be thrown in a heap in a corner of an outhouse or a cellar, as is far too frequently the case, but that they shall be properly stacked in heaps, with sand, fine dry soil, or other suitable material between the layers of roots. When they are thus correctly dealt with, the roots do not shrivel and there is no loss of quality, flavour, or nutritive value; whereas, when they are simply thrown anyhow and anywhere, the loss may be safely put at not less than one-half. The actual place of storage is not nearly as important as the manner of doing it, and as far as the former point is concerned, each grower may well consult his own convenience; but in respect of the latter there is no latitude, because the correct way is the only way.

Potatoes.—Stored Potatoes will cause a considerable amount of worry this winter, and it is imperative that examination shall be frequent to guard against serious losses through disease making itself manifest in the stocks. Although all the tubers were, as far as it was possible for one to judge, perfectly clean and sound when stored, it is probable that disease spores were on the skins or in the soil adhering to the skins. When the tubers are massed, as is necessary in storing, a certain amount of heat is generated, and the sweating which accompanies this combines to create a condition that is distinctly favourable to the germination of those spores, and the disease runs riot through the stock unless the cultivator is so wise as to examine the tubers often with a view to the instant removal of any that show the slightest indications of being faulty. This ought to be a wet-weather task, and its vast importance must be set against its decided unpleasantness. Late Potatoes not yet stored should have attention, exercising care to see that they are quite dry.

Vacant Ground.—Let all vacant ground in the vegetable quarters have immediate attention where the land is on the strong side. Bastard-trenching should be the rule, since this gives depth without changing the positions of the first and second spits. The top ought to be left as rough and lumpy as possible with a view to getting it well stored with water and then hard frozen, because these two things improve its fertility and mechanical condition. It is easy, when soil has had plenty of water and frost, to secure that beautiful tilth or season on the surface which is so favourable to the sowing of seeds or the planting of plants. Light, sandy soil is almost invariably better left lying solid through the winter, to be worked as early after the turn of the year as the

state of the weather will permit. Manuring should be done at the time of working, in both instances.

Liming.—When garden ground has been exclusively manured with natural excrement for five or six years, this material should be entirely withheld and full reliance placed upon concentrated fertilisers for a season. In the autumn—now—lime should be spread on the rough surface until it is perfectly white—not a vestige of the brown earth must be observable—and after eight days it may be lightly pointed in with a fork; but this is not really necessary, as it will assuredly find its way down. This will sweeten the ground and vastly improve its fertility.

H. J.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

TO PLANT VIOLETS IN A FRAME (*Ilex*).—You may prepare a hot-bed of manure and Oak or Beech leaves, trodden firmly, so that a fierce heat will not be generated. Place the frame in position, and over the manure put 4 inches to 6 inches of loamy soil. Tread moderately firmly and plant the Violets so that the outer leaves almost touch. Water at once and keep the frame fairly close for a few days; then admit air in the daytime. You may also use a frame without any heating material; but the most satisfactory results are obtained when a little warmth is provided. We do not consider that Violet Mrs. J. J. Astor is very suitable for planting in Rose-beds, and suggest that various Violas be used instead.

HONEYSUCKLES AND SAXIFRAGES (*R. S. D.*).—Two good Honeysuckles are *Lonicera flexuosa* (flowers red and cream, very sweet-scented) and *L. sempervirens* (the scarlet trumpet Honeysuckle). Both are good and free in growth. The China Rose named is of moderate vigour only, and not quite suitable for the high fence named. American Pillar, Jersey Beauty, or Hiawatha would be more serviceable. The Saxifrages may be raised from seeds, though if you have no experience in such matters we do not advise you to undertake the work at the start. The Mossy varieties are easily raised, though the seedlings, naturally, contain many of a weedy or poor character, while the seedlings of the encrusted sorts often move very slowly. In all the circumstances you had better purchase a select lot of plants. As, however, you intend the rock garden for these alone, it should be arranged to meet the requirements of all or several sections, as a position suited to one of the burseriana set would be useless for the larger-growing Mossies or the big-leaved Megasea group. A single plant of the former would require but the merest chink or crevice with a free root-run to grow in.

TREES AND SHRUBS.

TO REMOVE DOUBLE-FLOWED GORSE (*T. H. K.*).—Gorse, either single or double flowered, is not an easy subject to transplant. As your plants are not more than two years old, you may succeed with some of them, however, especially if you cut the branches well down at the time of transplanting. The work should either be done at once or left until late spring; midwinter would not be a good time for it. As a rule, the double-flowered Gorse is raised from cuttings inserted in a cold frame. When rooted, the young plants are potted singly into small pots. They are grown in pots until planted in

permanent positions. It would be a good plan to use some of the smaller shoots from your plants for cuttings to make up gaps where others die.

EVERGREEN FOR FRONT OF HOUSE (*Wharfedale*).—You will probably find that *Crataegus Pyracantha* or its variety *Lelandii* will suit your purpose better than anything else. Both grow fairly rapidly when once established, and have small, dark, evergreen leaves, bear white flowers in May and scarlet fruits in September. You had better obtain a plant established in a pot, for plants taken up from the open ground do not establish very well.

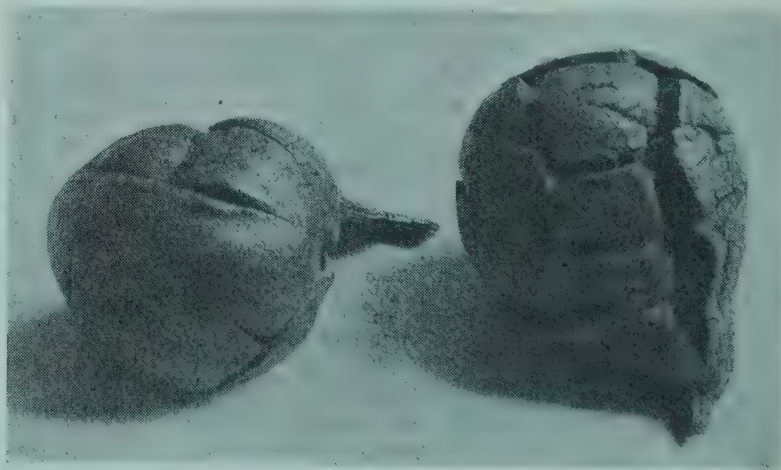
TO KILL THE STUMP OF A TREE (*R. T.*).—If you bore two or three holes, each 1 inch in diameter, into and to the centre of the trunk, and one hole into each of the main roots, and fill them with common salt, you will have no difficulty in killing your tree. Oil of vitriol would have the same effect, but it is dangerous to use. There is no necessity to cut the stump right to the ground unless you wish to do so. Left uncovered it will probably look objectionable, but you can easily clothe it by planting Ivy or a climbing Rose at the base and training the branches round the stump.

THE GREENHOUSE.

ASPIDISTRAS (*N. H.*).—The *Aspidistra* naturally forms a creeping rhizome from whence the leaves and flowers are produced, so that it always travels away from the centre. At the same time, there is a certain amount of individual variation, some plants having this character in a more pronounced fashion than others. Keeping the barren side to the light will not in any way influence the production of shoots there, though, of course, the leaves will naturally draw towards the light. The only thing that can be done to remedy the present state of affairs is to divide and repot the plant. It is now late in the year to do this, hence we should advise you to keep the plant as it is till next April. Then turn the plant out of the pot and take away as much as possible of the old soil. This will enable you to see the rhizomes and the direction they take. In all probability such a plant as yours will be the better if made up into two specimens. A good way to do this is to divide the plant into four, and if the back portions of the rhizomes are leafless, a portion may be cut away. Then take the two portions which are to form one specimen, and place them so that the growing points of each are towards the centre of the pot. In this way a well-balanced specimen will result, and it will then stand for some years before it needs to be again treated in this way.

FRUIT GARDEN.

AUTUMN PEARS CRACKING (*Miss M. H.*).—The cracking of the Pears is due to the fungus *Fusicladium pyrinum*, causing the disease called Pear scab. This fungus attacks the shoots and causes them to crack in a somewhat similar



PEARS ATTACKED BY THE FUNGUS *FUSICLADIUM PYRINUM*. THIS CAUSES THE LARGE CRACKS.

manner, and we recommend you to have all the dead and dying wood pruned out of the tree during the winter, and then spray the tree thoroughly with a solution of 1 lb. of caustic soda to 10 gallons of water to get rid of the lichen and so on. These measures will entail some trouble, but the reward will be edible Pears if you follow it up by spraying with half-strength Bordeaux mixture in the summer, once as soon as the petals drop, and again about the middle of June.

PLANTING FRUIT TREES (*J. B.*).—You may plant fruit trees any time between now and the end of March provided the weather is open. The best months are November and February. You will find pruning and root-pruning, also the treatment of Loganberries and similar fruits, fully dealt with in "Fruit-Growing for Beginners," price 1s. 3d., post free, from this office.

PRUNING APPLE TREES AND RASPBERRY CLUMPS (*Ilex*).—Both these subjects may be pruned at once or any time before the end of January. After the latter date, if the weather is mild, the sap begins to rise, and a certain amount of bleeding may result. Be careful to coat all wounds on your Apple trees with coal-tar as soon as made. This will act as a protection against fungus spores which may be blown about from cankered trees. You do not need to shorten Raspberry canes very

much; they may be left 4½ feet to 5½ feet high, according to strength. Do not leave too many rods to each clump; five or six are usually quite enough. We presume that you have already cut the old canes out, for that is usually done as soon as the fruit is gathered.

ROSE GARDEN.

LIQUID MANURE FOR ROSES (J. D.).—It is well to vary the food for Roses, and we would suggest the following applications given two or three times a week in the growing season, varying the kinds as often as possible. It is well to have separate tubs and to allow the liquid to stand five or six days before using: Nitrate of soda, or sulphate of ammonia, half an ounce to 1 gallon of water; superphosphate of lime, 1½ oz. to 1 gallon of water; guano, 1 lb. to 18 gallons of water; cow-manure, 1 gallon to 14 gallons of water; soot, 1 gallon to 18 gallons of water.

ROSES AND HEAVY SOIL (Oaks).—In order to make your stiff clay soil more workable, we should advise you to add plenty of burnt clay or, failing this, to incorporate ashes and gritty road scrapings. But the burnt earth is best, and any handy-man would show you how to start burning some of the clay, which should be done at once. In September you should commence to trench the land, and, in so doing, add basic slag to the lower spit of soil at the rate of 8 oz. to the square yard. If you get the land trenched and have the top left rough, you will find the frost and winds will make the surface more pliable, and when his condition add some spent Hops liberally and let them be incorporated with the top soil. The variety is General Macarthur, one of our very best red bedding kinds.

MISCELLANEOUS.

INSECTS IN WATER LILY POND (G. W.).—With further reference to your Water Lily pond, it may do good to clean it out again in winter and leave it empty for a time, especially if there is any frost. Frost, however, may kill the larvæ in winter.

DODDER ON GORSE (H. M. P.).—The only chance of eradicating Dodder is to burn all affected parts and use the ground for some other subject until it is free from Dodder seeds. Even if you were to succeed in killing the Dodder without injuring the Gorse by the use of some spraying compound, you would have another crop next year from seeds which have fallen about the base of the plants; therefore there is no option but burning those plants which are affected and thoroughly clearing the ground.

TO OBTAIN THE HEIGHT OF STANDING TREES (S. F.).—The best way to obtain the height of standing trees is to obtain one of the several instruments which are manufactured for the purpose, such as Weise's Hypsometer, Brandis's Hypsometer and Clinometer, or Stanley's Apocometer. The latter is very handy, and may be easily carried in the pocket. It is supplied, with directions for use, for one guinea. Most of these instruments are worked on the principle of determining the height by means of triangles formed by the tree, a base-line to a given point, and a supposititious line from that point to the top of the tree. Full descriptions are to be found in Vol. III. of "Schliek's Manual of Forestry." There are other ways, simple but less scientific. For instance, the height of a tree may be obtained by measuring the length of its shadow, and then, by simple proportion, calculating the height of the tree by comparing it with the length of the shadow thrown by a stake of given length. Thus, if a stake 10 feet high throws a shadow 15 feet in length, a tree throwing a shadow of 150 feet would be 100 feet in height. Such calculations should only be taken on level ground. The Bushman's method of finding the height of a tree is as follows: A stake is taken, with the distance above ground equal in length to the height of a man from the ground to his eyes. The stake is placed upright in the ground, and the man lies upon his back with his feet against the stake, and when he is in such a position that the top of the stake is in line with his eyes and the top of the tree, the distance from his eyes to the base of the tree is equal to the height of the tree.

UTILISING MASON'S LEAVINGS (E. H. D.).—We think you could turn the leavings of the mason to good account, and know of no better way of utilising the mixture referred to than by erecting a small rock garden. As there appears to be an abundance of sandstone locally, and as you give us no idea of the size of your formal garden or its surroundings, both the size and the arrangement would have to be decided by yourself after you had decided whether you wished merely to use the material you possess, or simply make of this a sort of nucleus for some larger arrangement. As your garden is hemmed in by a wall, we advise you to keep any rockwork entirely free therefrom, as such things are not infrequently a delusion. A better way would be to arrange raised rockwork beds, say, at the four corners of the square; or, if the garden is not of large size—everything, of course, would depend upon your own desires and upon ways and means—you might arrange a series of rockery beds, with intersecting paths to the central square. These need not exceed more than 2 feet or 3 feet that of the ordinary level, and by inserting a drainage of clinkers, or brickbats, or anything you can get, there would not be much fear of undue wet. The intersecting paths should be of gravel or finely-broken sandstone chippings. The sandstone blocks—than sandstone there is no better material for rock building or for plants—could be employed in building the erections, and the old mortar and other material for mixing with the soil. If the whole of the available soil inclines to retentiveness, sand, old mortar and plaster might be mingled therewith to the extent of one half of the bulk. The arrangement should be on a liberal scale; that

is to say, the spaces for the plants should be large—3 feet to 6 feet across—seeing that only those of free growth would be suitable. Liberal apartments such as these would accommodate a dozen plants of a kind, which would afford sheets of colour. In this way quite a host of Saxifragas, alpine and other Philoxes, Campanulas, Achilleas, Primulas, Polygonums, Litrospermum, Sedum, Iberis, Androsaces, Dianthus, Thymus, Erigerons, Prunella, Veronica, Coronilla, Aubrietia and others might become a permanent feature and afford infinite pleasure. It might also be possible at small expense to have a bed for moisture-loving plants, Lilies, Primulas, Trilliums and the like. There is a wealth of material available, and many ways of utilising it to advantage. The best way, however, could only be determined on the spot.

LICHENS ON TENNIS LAWN (A. H., Sussex).—The ground must be in a very stagnant state to nourish specimens of lichens such as you send. The usual remedy in such cases is draining the ground; but on the slope of the South Downs, with a chalky subsoil, this ought not to be necessary. Is it possible the position is shaded by trees, or on the north side of a high building? So much depends on local conditions in such cases that it would be better to call in a local expert—the green-keeper of a golf course or county cricket ground, for instance. A dressing of lime might kill it; or if not a large piece of ground, it might be worth while digging it all over, levelling and resowing with Grass seed early in September.

NAMES OF PLANTS.—*Coningsby and J. J.*—See next week's issue.—*W. B. B.*—*Wulfenia amherstiana*.—*A. C.*—1, Begonia seedling not named; 2, *Eschynanthus speciosus*.—*J. D. B., Cambridge*.—1, Irene Watts; 2, Mrs. E. G. Hill; 3, Mme. E. Resal; 4, Queen Mab; 5, White Pet; 6, Aurore.

NAMES OF FRUIT.—*W. H. Stabler*—Grape Black Hamburg.—*W. T. Brunger*.—The Pear arrived rotten and we were unable to identify it.—*Healing*.—1, Marie Louise d'Uccle; 2, Doyenné du Comice; 3, Maréchal de la Cour.

SOCIETIES.

BRIGHTON AND SUSSEX CHRYSANTHEMUM SHOW.

The thirtieth annual autumn exhibition was held in the Dome and Corn Exchange on November 5 and 6. Unfortunate weather marked the occasion, but its effect was scarcely perceptible in the matter of exhibits or in that of attendance. In regard to the former they possessed a very high degree of excellence, displaying the cultivators' skill in a marked degree, especially in the large classes for cut blooms, where competition was very keen. The following constitute the primary awards:

For a circular group of Chrysanthemums arranged with Ferns or other green foliage plants for quality and effect in a circle 8 feet 6 inches in diameter, the first prize, a handsome silver cup and the society's silver medal, fell to S. C. Witting, Esq., Patcham (gardener, Mr. G. Chandler).

For a circular group of Chrysanthemums only, Dr. Tulk-Hart, Brighton (gardener, Mr. J. Adis), scored.

For twelve bush plants, Pompons only, not fewer than eight varieties nor more than two of one variety, P. H. Bayer, Esq. (gardener, Mr. G. H. Bennett), was first, followed by S. Copestake, Esq., Hove (gardener, Mr. A. Sayers), and C. A. Wood, Esq., Brighton (gardener, Mr. S. Watkins). In addition to the first prize were a handsome silver cup and the society's silver medal.

CUT BLOOMS (OPEN).

For thirty-six Japanese, not fewer than twenty-four varieties nor more than two of one sort, a handsome silver bowl, the society's medal and first prize fell to G. L. Wiggs, Esq., Merstham (gardener, Mr. M. Sargent); second, Colonel C. P. Henty, Avisford, Arundel (gardener, Mr. J. Harris); third, Mrs. L. C. Goad, Worthing (gardener, Mr. Charles Hack); fourth, the Rev. F. S. Slater, Lewes (gardener, Mr. J. E. Hickson); and an extra prize to L. Breitmeyer, Esq., Cuckfield (gardener, Mr. Hugh MacFadyen). There were six entries; the keenness of the competition will be recognised by the number of awards. The first-prize collection, which was remarkably fine and even, contained grand specimens of Frances Jolliffe, Mrs. Gilbert Drabble, Master James, William Turner, F. S. Vallis, John Peed, Willie Rawlings, Purity, Frank Payne, W. Mease, Mrs. L. Thorn and Mrs. R. Luxford.

For twenty-five Japanese as cut from the plants, not fewer than eighteen varieties, the premier award fell to H. Ramsbottom, Esq., Crowborough (gardener, Mr. A. Jewell), who showed magnificent blooms of Thorpe Beauty, Mme. G. Rivol, Mary Poulton, Mrs. Charles Beckett, George Mileham '08, Mrs. C. H. Totty and Mrs. G. C. Kelly. Messrs. James Stredwick and Son, St. Leonards-on-Sea, were second, with L. Breitmeyer, Esq., third.

Twelve Japanese large-flowered, distinct: First, Mr. C. Fox (amateur), Tunbridge Wells, with fine blooms of Mrs. A. T. Miller, Alice Lemon, Lady Carmichael, Kara Dow, Lady Talbot and Master David; second, C. E. d'Avigdor Goldsmid, Esq. (gardener, Mr. Charles Earl).

Six incurved Japanese, large-flowered, distinct: First, Colonel Henty; second, Dr. House, Worthing (gardener, Mr. A. E. Clarke).

Six Japanese, one variety, any colour: First, L. S. Wigg, Esq., with Frances Jolliffe; second, Mr. W. H. Apted, Worthing, with W. Mease; third, Mrs. L. C. Goad, with Rose Pickett.

Six incurved, any one variety: First, Colonel Henty, with Clara Wells; second, Mr. Frank Green, with Romance.

Twelve Japanese Chrysanthemums (amateurs' division), not fewer than nine varieties nor more than two blooms

of one sort: First, Mr. C. Fox; second, Mr. T. West; third, Mr. J. J. Burrows. Accompanying the first prize was a silver challenge trophy, which now becomes the absolute property of Mr. Fox, who has succeeded in winning it three times and that in three successive years.

ROYAL HORTICULTURAL SOCIETY'S ORCHID CONFERENCE.

In connection with the brilliant and remarkable exhibition of Orchids at the Royal Horticultural Hall on November 5 and 6, a conference was held in the Lecture Room on Wednesday. A good audience of those interested in the breeding of these plants was present at each of the sessions, and excellent papers were read, albeit not couched altogether in the language of the unlearned. Mr. J. Gurney Fowler, the chairman of the Orchid committee, presided at both meetings, and kept the conference within the bounds of time set and the limits of discussion in the admirable manner one has learned to expect of him.

Professor F. Keeble, M.A., of the University College, Reading, read the first paper on "The Physiology of Fertilisation." He gave a brief outline of the history of our knowledge of the phenomena of fertilisation, a knowledge which is of comparatively recent growth and is still far from perfect. He pointed out that it was essentially the fusion of two masses of living stuff into one whole, one from the pollen tube, the other from the ovule. The whole of the curious phenomena of growth and development of the flower was aimed at securing the proper carrying of the pollen nucleus to its destination. Recent research had shown that this fusion was not always absolutely necessary to secure the development of an egg into an embryo. In some curious cases, such as that of *Zygopetalum Mackayi*, no matter with what pollen the stigma was pollinated, whether it be an *Odontoglossum* or member of another genus, the seeds produced gave *Zygopetalum* pure and simple. Did fertilisation really occur here? One could not suppose it did. Pollination apparently brought about stimulation of the ovules to develop as well as a mass of living stuff to the egg-cell, and it was probably this stimulative effect that resulted in the production of seeds in *Zygopetalum*, quite apart from actual fertilisation. Experiment had shown that both chemical and mechanical stimulation would bring about similar results in certain cases. A brisk discussion followed, and many interesting points were raised and observations made.

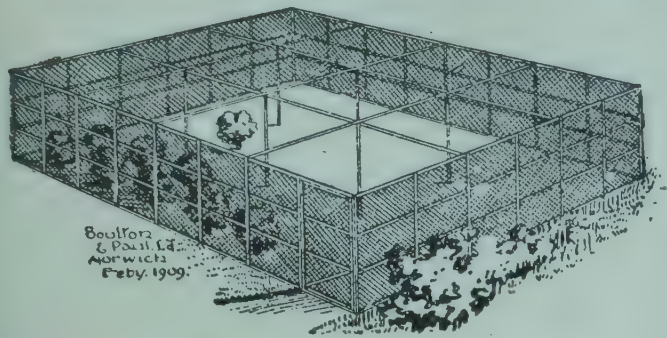
Major C. C. Hurst's paper on "The Application of Genetics to Orchid-Breeding" was followed with equal interest. He referred to the extensive part the Royal Horticultural Society had taken in propagating a knowledge of genetics, and to the enormous progress the study had made during the past ten years. He thought that if only the principles of genetics (which he detailed) were followed to a conclusion, much time might be saved, and certainty of result instead of chance would be gained in raising the desired scarlet *Odontoglossum* or scarlet *Cattleya* or yellow *Cattleya*, and similar things still only dreamt of. The Orchids might have a stud book, and those known to yield good offspring because they were "pure bred" would acquire a stud value just as pedigree stock did, and with it an enhanced commercial value. He went further and showed how these pure-bred races might be obtained. Mr. Crawshaw perhaps touched on one of the greatest difficulties met with in testing the pureness or otherwise of a stock in the enormous mortality of the seedlings. But if this purity can be tested, there is no doubt that chance, with its prodigious number of useless plants, would give place to certainty in raising not only these but other plants.

After the interval for lunch, Mr. H. G. Alexander read his paper on "Epiphytic Orchids," and dealt with the principles of their cultivation in a most masterly manner. Everyone who has seen Sir George Holford's splendid exhibits will know that his Orchid-grower is no mere theorist, and when he insists on the importance of ample light and efficient ventilation at all times in growing such plants as Vandas, *Cattleyas*, *Laelias*, *Dendrobiums* and so on, attributing much more importance to light and air than to heat, one knows he is preaching his own admirable practice. One question often asked is, "Should epiphytic Orchids be manured?" Mr. Alexander gives an emphatic negative. Another, "How often should Orchids be watered?" Mr. Alexander says (and every grower will agree with him) no man can answer that question. He insisted on the need for a study of the conditions under which the plants were grown, as well as the state of growth of the plant. A host of cross-questions followed Mr. Alexander's paper, and to them straight answers were promptly returned, to the benefit of all present.

Then followed Mr. Thwaites' paper on the raising of albino Orchids and his remarks on the difficulties he had experienced in raising them and in understanding the various theories regarding them that had been propounded from time to time. However far one may be inclined to follow his conclusions, everyone will certainly agree with his remarks as to the desirability of not naming merely whitish forms "alba," but confining that term to real albinos. Mr. Thwaites' remarks called up considerable discussion, and one must wait to study the full text of his paper and that of Major Hurst, who dealt with the same subject, before one can see precisely the value of their respective arguments.

Sir George Holford, in moving the vote of thanks to the chairman at the end of the meeting, confirmed the remarks of his Orchid-grower concerning the need of light and airy situations and structures for the growing of Orchids, and deprecated the use of close and dark houses and permanent shading upon them. Needless to say, growers will take his words to heart, and we shall see fewer cases of mortality among Orchids brought about by partial starvation through lack of light, and suffocation through lack of air.

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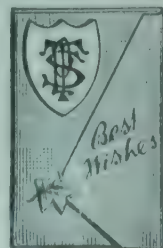
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CHRYSANTHEMUMS IN THE LONDON PARKS.

THE shows of these flowers in the London parks this year are a great improvement upon the old style. After an interval of several years we have now visited Waterlow, Finsbury, Victoria, Battersea, Southwark and Brockwell Parks. Apart from the excellence of culture, which in several cases is better than we ever saw before, the general artistic arrangement everywhere appears to have been studied with great success.

At Waterlow Park the show-house is hardly suitable for the occasion. It is an old house adapted to the purpose, but the Superintendent there must be severely handicapped by the three or four parts into which the house is divided. A most excellent decorative effect is obtained in spite of the disadvantage. A 100-feet span-roofed house would be far preferable to the existing one.

Victoria Park was always a show worth seeing. In a span-roofed house 100 feet by 25 feet there is a very choice collection of finely-developed flowers in the incurved, Japanese, Anemone, hairy and single sections. A winding path from end to end leads the visitors through the double banks of bloom, which have for an edging a neat arrangement of singles and Pompons, Ladysmith predominating. The ends, sides and eaves are freely decorated with medium-sized Japanese in great profusion, and, let us add, the plants are neatly and legibly named with great care.

Finsbury Park has only one display, instead of two as in years gone by. The show is held in the large conservatory near the Manor House entrance. It is beautifully arranged, with a profusion of fine blooms of the large-flowering kinds, interspersed with ornamental Ferns and foliage plants and a number of well-grown up-to-date singles.

Southwark Park is down by the busy water-side. Docks, wharves, factories, &c., and the densely-populated streets do not contribute favourably to high-class culture, and yet we do not remember ever to have seen a finer, brighter, cleaner lot of big show blooms than are here exhibited this season. Instead of having a double path round the T-shaped house, there is only a central one. This gives ample space right and left for a broad expanse of colour, which is effective and most skilfully accomplished. The varieties are those usually met with at the Parks, the enumeration of which even briefly considerations of space forbid.

At Battersea Park there is always a distinct artistic effect studied, and this year is no exception to the rule, although there is a departure from the old practice. We rather admire the breaking up of the collection into two banks of colour, with a central path that turns right and left in the middle to allow for the inclusion of a large oval bed filled with Soleil d'Octobre. Margot, Pompon Sœur Melanie, and many others are used in great profusion to carpet the ends and sides with an abundance of colour, while, from the ridge, hanging baskets of Chrysanthemums are something in the way of a surprise. Intermingled with the big show blooms in the two sloping banks of colour are Palms and bush-grown singles that stand high above the others, and thus help to lend variety to the display.

Brockwell Park has now a little span-roofed house about forty feet long, in which the flowers are staged. The visitor has to reach it *via* the Old English garden, which, of course, at this season of the year has no attraction left. The Chrysanthemums are well grown and effectively staged, the house being decorated with small flowering varieties in much the same way as some of the others. We recognise some of the more popular singles and Japanese, but the total absence of any labelling of the varieties is a matter for regret. For the public to walk through such a show and not know what they are looking at is not only uninteresting but vexatious.

It is remarkable how popular in the districts these shows are. On fine Sundays the public have to line up and go through in a stream, the number reaching 7,000 to 8,000 persons. On week-days, of course, there is a diminution of the number, but on Saturdays there is generally a large crowd of interested spectators.

BOURNEMOUTH AUTUMN SHOW.

THE twenty-sixth annual autumn exhibition of flowers, fruit and vegetables was held in the large pavilion of the Winter Gardens on November 5 and 6. Owing to the Orchid exhibition being held in London, some of the large cultivators did not exhibit Orchids at Bournemouth; but in regard to competitive and other exhibits the display was very fine indeed. The arrangements committee disposed the exhibits in an attractive way. The six large groups and the twelve tables decorated as dinner-tables made a lovely show. Sir Albert Kaye Rollit, LL.D., had kindly promised to open the show, but was unavoidably prevented through illness. Sir Daniel Morris, V.M.H. (president), made this announcement at the opening, which was performed by the Mayor of Bournemouth (Dr. McCalmont Hill). Sir Daniel also stated that Sir Albert had sent a medal to be presented to the most meritorious exhibit in the show, and that it had been awarded to Hugh Andrews, Esq., of Toddington Hall, Gloucestershire (gardener, Mr. Tooley).

GROUPS.

There were six large groups in competition, and Mr. Usher, gardener to Sir Randolph Baker, Bart., was the winner. Mr. Barrett, late secretary to the society, was a close second, having fine Chrysanthemums and foliage plants.

In the class for a group of Chrysanthemums, Mr. E. G. Cox, gardener to G. S. Duberley, Esq., won, thus securing the cup presented by the late Dowager-Lady Miller.

CUT BLOOMS ON BOARDS AND IN VASES.

Mr. T. Stevenson, gardener to E. G. Mocatta, Esq., Addlestone, won in the class for twenty-four blooms on boards, not fewer than eighteen varieties. He had W. Turner (2), Hon. Mrs. Lopes, Mrs. R. A. Witty, F. S. Vallis (2), Queen Mary (2), Master James (2), William Gee, Thomas Lunt (2), Mme. G. Rivol, Queenie Chandler, Frances Jolliffe, Francis Rowe, Fred Chandler, His Majesty, Lady Talbot (2), W. Mease and Miss A. E. Roope, and all were staged in an attractive manner. Second honours

fell to Mr. Usher, and third to Mr. B. Darce, gardener to W. Dickinson, Esq., Taunton.

Mr. T. Stevenson was again successful for twelve Japanese incurved, showing blooms of the highest quality, namely, W. Turner (2), Willie Rawlings (2), Mme. G. Rivol (2), Mrs. A. T. Bott, Mrs. W. Iggulden, Miss A. E. Roope and Queen Mary. Mr. Usher was second, and Mr. J. Stevenson, Wimborne, third.

Mr. Tooley won with magnificent blooms in the vase class for twenty-seven blooms in nine varieties, three blooms in a vase. F. S. Vallis, Lady Talbot, Master James, Mme. G. Rivol, Purity, Mrs. Mease, Hon. Mrs. Lopes, O. H. Broomhead and Frances Jolliffe were the best blooms in the show, and Sir A. Rollit's medal was also awarded to this exhibit in addition to the cup. Mr. J. Stevenson was second and Mr. Usher third.

FRUIT AND VEGETABLES.

Mr. Tooley and Mr. G. Garner were the principal winners in the Grape classes, and Messrs. G. H. Copp, T. Stevenson and A. E. Usher in the Apple and Pear classes. Mr. Usher won the first prizes in the principal vegetable classes.

NON-COMPETITIVE CLASSES.

Gold medals were awarded to Messrs. Stuart Low and Co. for Carnations and Orchids; and Walter Child Clarke, Esq., for Orchids and Begonias.

Silver medals were awarded to Mr. Vincent Slade for Zonal Pelargoniums; Mr. Pursglove, Winter Gardens Management Committee, for Chrysanthemums and autumn foliage; Messrs. Toogood and Sons for Onions and Marrows; Mr. Welch, Park Nurseries, for fibrous Begonias and Ericas; and The Christchurch French Gardening Company for vegetables and salads. Mr. T. K. Ingram, Parkstone, for miscellaneous plants; Messrs. Jarman and Co., Chard, for Apples; and Mr. J. Stevenson, Wimborne, for Chrysanthemums and Sweet Peas in pots, were highly commended.

The children's sections were well filled and very attractive and instructive.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of the Scottish Horticultural Association was held in their hall, 5, St. Andrew Square, Edinburgh, on the evening of November 5. There was a good attendance, presided over by Mr. W. H. Massie, president of the association. The exhibits were limited in number, and included a new Zonal Pelargonium from Mr. David W. Thomson, George Street, Edinburgh, which was awarded a certificate of merit; a good specimen of *Justicia carnea* from Mr. A. Johnstone, Hay Lodge, Edinburgh; and a pleasing exhibit of *Primula malacoides* from Mr. J. Hamilton, Southfield Gardens, Liberton, consisting of several finely-grown plants of this pretty *Primula*. A cultural certificate was awarded.

After the ordinary business two papers of much excellence were read, these being by Mr. Alexander Eddington, Edinburgh, and Mr. James Hay, senior art master in George Watson's College, Edinburgh. The former lectured on "Villa Gardening," and began by discussing the question of design in the villa garden. Mr. Eddington gave an able paper, and took the view that there was too much uniformity both in design and in the subjects planted. He advocated more attention being given to colour arrangements and to succession of bloom. The paper was both instructive and suggestive, and was followed with close interest. Mr. Hay illustrated his paper with coloured drawings and diagrams, which gave point to an excellent contribution to a subject which deserves more attention even than it has received. This was that of "Window Gardening," which Mr. Hay discussed with knowledge and ability. By means of the drawings and verbal explanation he showed how attention to design and other points would make a vast improvement on a window garden at little expense, and many suggestions tending to the improvement of the art were given.

SOUTHAMPTON AUTUMN SHOW.

THE autumn exhibition, held at the Coliseum, Portland Terrace, on November 5 and 6, was a great success.

VASE CLASSES.

For twenty-four blooms, Japanese, eight varieties, three blooms of each, Mr. W. Hall, gardener to Major Chichester, Romsey, was first. He had grand blooms of Master James, Mrs. L. Thorn (superb), Frances Jolliffe, George Hemming, F. S. Vallis, Dorothy Goldsmith, W. Turner (9 inches by 9 inches) and Bessie Godfrey. Second honours went to Mr. Hosey, and third to Mr. Bealing.

Mr. W. Hall also had the best six cut blooms, Japanese, white, staging three blooms each of Mrs. A. T. Miller and Mrs. Lever. He had the premier six in two varieties other than white, staging Lady Talbot and D. B. Crane.

In the class for six vases of singles, disbudged, Mr. Bealing scored with Mensa, Merstham Gem, Eureka, J. B. Lowe, Humber and Ceddie White.

In the class for six vases of singles, without disbudging, Mr. C. Dymott, Southampton, won, Polar Star and Mrs. Pulling being fine.

CUT BLOOMS ON BOARDS.

Mr. W. Baxter, gardener to Captain Dalgety, won in the class for twenty-four Japanese blooms, not fewer than sixteen varieties. He had F. S. Vallis, Master James, D. B. Crane, W. Turner, Queenie Chandler, Mrs. R. Luxford, Mme. Rivol and Maud Jeffries in grand condition. Mr. W. Hall was second, with Mr. A. J. Marsh, gardener to M. Hodgson, Esq., third.

Mr. Edwards, gardener to W. Garton, Esq., Sarisbury, had the best twelve Japanese, distinct. Mr. Marsh scored with incurves, staging eighteen splendid blooms, C. H. Curtis being selected as premier bloom in this section. Mr. Edwards was second and Mr. Bealing third.

Mr. Edwards had the best twelve incurved, and was followed by Mr. Allan Hill, who had the variety Clara Wells as the premier bloom.

TABLES.

Miss Minnie Snellgrove had the best dinner-table decoration, a beautiful arrangement; Mrs. Ladhams and Mrs.

Bealing being second and third respectively. Miss Snellgrove also won in the classes for epergnes and vases, and Mrs. Bealing had the best basket.

For both ball and bridal bouquets Mr. Wills was awarded first prize.

FRUIT AND VEGETABLES.

Mr. W. Hall scored in the class for two bunches of black Grapes, staging Appley Towers. He also had the best Alicantes, and Mr. Baxter the best white, staging grand bunches of Muscat of Alexandria. Mr. Hall had a superb bunch of the latter in the class for a single one of white Grapes, and also in the class for a single bunch of black Grapes.

Mr. T. Hall staged the best four varieties of dessert Apples, and Mr. D. Edwards the best four dishes of kitchen Apples.

Mr. Ellwood had the premier dish of dessert Apples and Mr. Learmouth the best single dish of Cox's Orange.

In the principal classes for collections of vegetables Mr. Ellwood was the winner, staging grand produce.

NON-COMPETITIVE EXHIBITS.

Gold medals were awarded to Messrs. James Carter and Co. for vegetables; Mr. Wills for floral designs, plants and flowers; and Messrs. Toogood and Sons for vegetables. Silver-gilt medals to Messrs. W. H. Rogers and Sons, Limited, for fruit; and Messrs. B. Ladhams, Limited, for miscellaneous flowers, fruit, &c. Silver medals to Messrs. W. Wells and Co. for Chrysanthemums; Mr. H. Longster for floral designs, plants and fruit; A. A. Pyke, Esq., for Begonias; and Mr. C. Dymott for market Chrysanthemums.

BOOKS.

Growing Crops and Plants by Electricity.*

The author of this handy book says, in the preface, "The subject of Electro-culture has now reached a stage at which it is of real interest to the man-in-the-street." Further, he says, "This book is intended to serve a double purpose: to interest the general reader, and at the same time to give the farmer, the market-gardener and the amateur horticulturist a clear idea of what has been and is being done in the application of Electricity to growing plants." The author gives the results

* "Growing Crops and Plants by Electricity," by E. C. Dudgeon; price 1s. net. S. Rentell and Co., Limited, 36, Maiden Lane, London, W.C.



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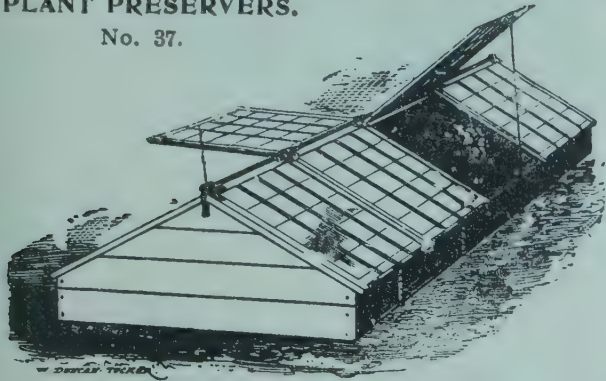
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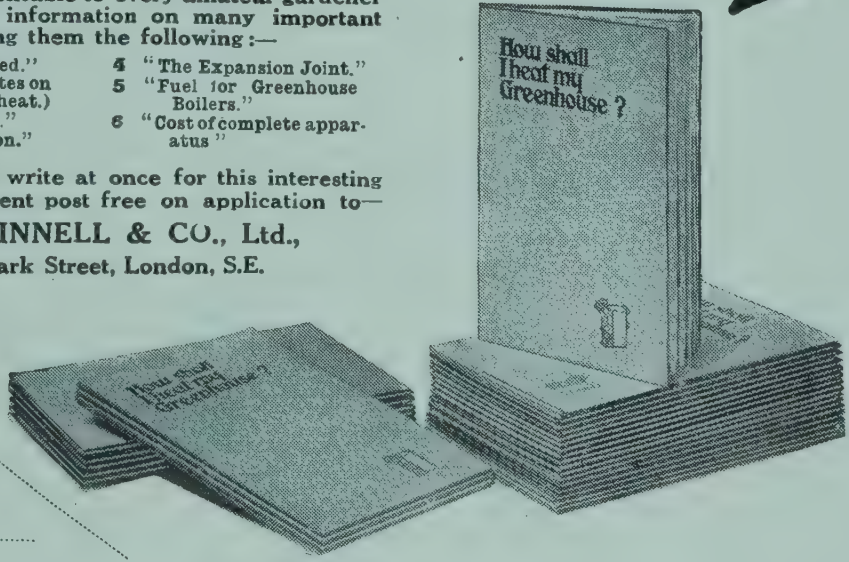
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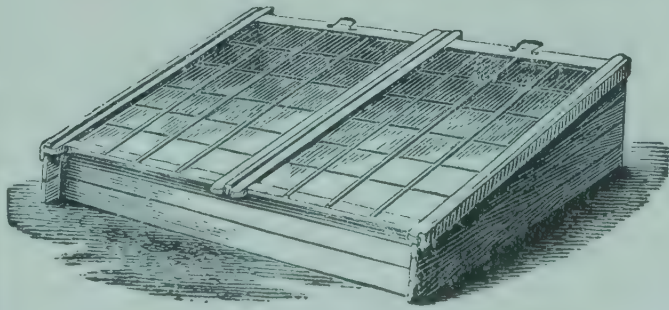
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of his experiments, and has very interesting chapters on Atmospheric Electricity, Electricity and Market-gardening, Forcing by Electric Light, The Mercury Vapour Lamp, and How Electricity Affects the Growth of Plants. There are a number of photographs of electrified and non-electrified fields of Wheat and other kinds of plants. The tables showing the beneficial effects of the electrical discharge upon the growing crops are very interesting. The extra weight per acre of Potatoes from an electrified plot is given as 1 ton 9cwt. 2qr. 20lb. In the chapter on Atmospheric Electricity the control plot gives Potatoes, 220lb.; Sainfoin, 220lb.; and Hemp, 220lb. The experimental plot gave Potatoes, 373lb.; Sainfoin, 552lb.; and Hemp, 775lb. The Potatoes on the experimental plots, ready for lifting a week earlier than on the control ones, were of stronger fabric and contained more starch. The Highfield Nurseries Company, Essex, have recently installed a new type of machine, invented by Mr. Clark of Bishopston, Bristol, for electrifying the atmosphere of glass-houses. The results of this experiment in a house 200 feet by 24 feet will be watched for with great interest, says the author of this book. Where the arc lamp has been tried on Chrysanthemums, Geraniums and Tomatoes, under certain conditions the difference observed by the end of the first month between plants grown under the light and those away from it was that the former were, in a few weeks' time, almost twice the height of the control ones. The foliage was a deeper green, showing an increase of chlorophyll. The mercury vapour lamp was experimented with in the raising of seedlings, and results are given on page 29. French Beans germinated in the experimental house in thirteen days; in the control house in twenty-one days—a difference of eight days. Corn, as well as vegetable seeds, were experimented with. Sir Oliver Lodge is quoted as admitting that "though the electric discharge cannot take the place of sunshine, in a minor way it is quite possible it assists growth, especially on dull days." The information contained in this small book is valuable, and given in a very interesting way.

The Story of Our Trees.*—This work is one of a number of Nature study books which are appearing as "The Cambridge Nature Study Series" under the general editorship of Hugh Richardson, M.A. In the preface we are told that the book is to help children to study Nature, not to put book study instead of Nature study, and to direct and stimulate observation and reflection. After a careful examination of the book, we find that Mrs. Gregson has told her story in such a manner that she cannot fail to effect her object. From beginning to end the book is full of interest, and the information is imparted in such a clear and fascinating manner that even the younger children will be able to understand all that is written. There are fifteen chapters, arranged so that they make twenty-four complete lessons, and the various lessons are prepared with a view to being given during appropriate seasons. As an example we may mention "Leaf Casting," timed for the last week in October. Children are taken for a walk and are encouraged to note and collect coloured leaves. They also observe the manner in which the leaf is detached from the branch, and explanations are given of the changes which take place in the character of the cells before the leaves fall. Branch falling is described, and the change of leaves into humus is noticed. At the end of the chapter practical work is arranged, and suggestions are made for home work. Other lessons deal with Fruits and Seeds, Growth of Seeds, Winter Buds and Tree Forms, Tree Planting and Tree

* "The Story of Our Trees," by Margaret M. Gregson, B.A.; price 2s. 6d. The Cambridge University Press.

Felling, Evergreens, How a Tree Lives, The Root, The Trunk, Catkins, Thorny and Climbing Plants, Leaf Buds, The Leaf and The Flower. The book is well illustrated by seventy-four photographs and drawings, and the letterpress is bold and easily read. We congratulate Mrs. Gregson on her book, and have no hesitation in recommending it to all who are interested in Nature study either as teachers or students.

The New Gardening.*—The sub-title of the book, "A Guide to the Most Recent Developments in the Culture of Flowers, Fruits and Vegetables," suggests to the reader that he has a book in hand which is thoroughly up to date. Horticulturists, if they are to be successful, must study the latest developments in the various branches in which they are chiefly interested. The author of this volume is a well-known writer on matters appertaining to horticulture, and he not only possesses a bright literary style, but imparts a great amount of information in a small space, so that the reader can always find quickly that which he seeks. Mr. Walter P. Wright, the versatile author, knows what the public want, and in a very charming way supplies that want. He recognises the fact that in these days of progress, amateur cultivators are being added to the ranks in tens of thousands, and that they have their special hobby, one favouring Sweet Peas, another Roses, another Carnations, while many devote close attention to fruit or vegetable culture. Some confine their efforts to the making of a pretty garden, having a little of nearly everything in it, and some want nothing better than a good collection of hardy border flowers. The author caters for everyone. Neither waste of space nor material is tolerated in gardens in these days. The small garden is required to yield big crops, and the author describes, in concise terms, how this can be accomplished. He refers to the large fruit tree with its tiny specimens as being obsolete, and to the small, well-cultivated specimen with its large, handsome fruits. Part III. of the book is devoted to notes on vegetables, and Mr. Wright deals with the cultivation of them in small gardens, laying stress on the advisability of growing the choicer kinds and excluding the coarser sorts in such small areas, and gives useful hints on the forcing of vegetables and their cultivation in frames. We need only add that rock and water gardening and the increasingly popular Japanese style are all dealt with. The book extends to nearly four hundred pages, and is lavishly illustrated in colours and in black-and-white. There is a complete index, and the printing is excellent on good paper. All lovers of a garden should possess a copy.

Horticultural Education Association.—Largely in consequence of its activity in furthering the establishment of a diploma for gardeners, the Horticultural Education Association has recently acquired a considerable accession of membership. Messrs. John Weathers, James Udale, Harry L. Foster, J. Clarke Wallace, G. W. Pyman, K. D. Scott and B. P. Perry are the latest to join. The hon. secretary is Mr. W. P. Wright, Lyminge, Folkestone.

"Country Life" for November 16 contains, among other articles, an illustrated account of "Bovey House, Beer, Devon," by Lawrence Weaver; "Tales of Country Life: That Mixed Bag of Fish," by John Barnett; "Evening" (Poem), by Lady Margaret Sackville; "The Romance and Rariora of the Still" (illustrated) by A. M. Broadley; "An Irish Havana" (illustrated), by Hill Rowan; "Modern Moscow"; "In Abor Jungles"; "Fishing in Roumania"

* "The New Gardening," by Walter P. Wright. Published by Grant Richards, Limited, London. Price 6s. net.

(illustrated), by Captain C. R. E. Radclyffe; "Wild Country Life," by H. A. Bryden.

OBITUARY.

WILLIAM WATTS.

AFTER a very short illness Mr. W. Watts passed away at his residence in the Palace Nurseries, Bournemouth, on Tuesday, October 29, in his fifty-second year. A very wide circle of friends and horticulturists will learn with deep regret of the death of this amiable gentleman. He was much beloved by the numerous employes and respected by the public. As a propagator and plant-grower few surpassed him. He always studied details closely, and rarely missed giving new plants a fair trial. He had a wide experience in general nursery work, and lately took a leading part in making a new nursery ground where Gorse and Heather previously grew. Mr. Watts took much interest in the Bournemouth Gardeners' Mutual Improvement Association, and also in the Bournemouth Horticultural Society, being a vice-president of both.

TRADE NOTE.

A USEFUL STRAWBERRY POT.

IN the winter treatment of Strawberry plants for forcing it often happens that the pots become either cracked or broken. Strawberry plants require firm potting, and the pressure is more than a weak pot can stand. A few years ago a new pot having a double rim was specially designed for Strawberry forcing by Mr. Mackellar of the Royal Gardens, Windsor. Strawberries are forced with marked success at Windsor, and a broken pot is quite the exception. This special pot is being made and sold in quantity by Messrs. Richard Sankey and Son, Limited, the time-honoured firm of the Bulwell Potteries, Nottingham.

* * The Yearly Subscription to THE GARDEN is: Inland 6s. 6d.; Foreign, 8s. 9d.

HOW BEST TO PROPAGATE ROSE

is a problem which the Bees have studied and solved. We have already explained how effectively the very important matter of soil cultivation is disposed of on Bees' Rose Farm in North Wales by means of the powerful steam plough and cultivator, how it is possible to till the soil far more deeply and thoroughly and at the same time more cheaply, than by the ancient horse plough or manual labour.

We have also discussed the matter of the best stock for Roses, and have shown, beyond all shadow of doubt, that the wild Dog Rose or Rosa canina of Britain is far and away the best. We have also stated that Bees guarantee their roses to be "worked" on this Best Stock.

We now wish to explain the immense importance to you of the method of "working" roses. The term "working," the way, simply means "propagating" or increasing the number of rose trees. Like most plants the rose can be propagated by several means, and, as is generally the case, the best is a "Best" way, and the best way is by "budding" the roses on Dog Rose stocks.

Hundreds of thousands of Roses sold in this country every year are French grafted stuff. Now practically the only thing which can be said in favour of French grafted roses is that they can be sold at low rates.

Every rosarian of experience in this country will vote against "grafted" roses, even if it means paying more for "budded" trees. There are physiological reasons why a grafted rose tree is not so perfect as a budded plant. They are far too complicated to consider here. Enough to say that the grafted rose is very often not on the true briar stock and has a much shorter span of life than the rose tree which is "budded" on the true British Dog Briar.

Listen to what George Nicholson says in his monumental Encyclopædia of Horticulture, dealing with the propagation of Roses, on page 316, Vol. III.

"Grafting."—The parts rarely unite so well as they do when budded."

This may be due in part to the fact that grafting is usually done in heat, under glass, while budding is done in the open field. By skilful coddling in a hot-house weakling scions and stocks may be temporarily welded together. On the other hand, "budding" has to stand the weather, which even in summer may bring a keen drying wind one day and a drenching downpour the next. The result is that only vigorous healthy scions and stocks are able to unite to form a plant.

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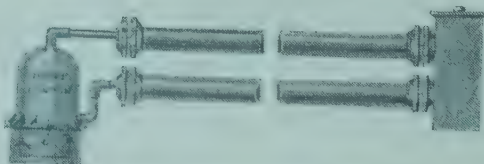
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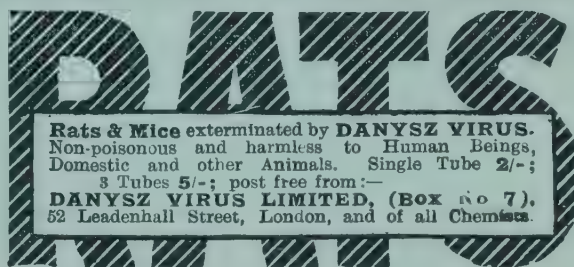
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Cannot fail planted now. Will get established before winter. The quality of my plants has been well known for over a quarter of a century in every part of the United Kingdom and most parts of the world. And the letters of thanks and praise received would more than fill every page of "The Garden" if set in the smallest type.

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Huge blossoms of magnificent lustre and texture often 10in. to 12in. across; glorious for greenhouse, but quite hardy for outdoors. Should be planted at once as they flower early in spring. There is a refinement more rare and a charm more fascinating about these Tree Pæonies than can be described on paper. **3/- each; 3 for 7/6.**

[Photo] PÆONY QUEEN VICTORIA.

[Merrett Bros., Stroud.

GIANT FLOWERING JAPANESE AND CHINESE PÆONIES.—Truly glorious beyond description. The most magnificent of all Hardy Plants. The fragrance of these new Pæonies creeps into the senses, soothes, delights, refreshes. Its charm lingers in the memory long after the perfume itself has stolen away. Double Herbaceous Pæonies are the most magnificent of all hardy herbaceous plants; they are immense in size, gorgeous in colour, yet withal of exquisite delicacy and of indescribable beauty. Much that has been said of the Rose by poets of all ages might with equal truth be addressed to these truly noble flowers. A place should be found for Pæonies in every garden, in one form or other; they should decorate beds and borders, terrace walks and drives, and they are now so cheap they should find a place in copse and woodland, in wild garden and shrubbery; in fact, wherever flowers may beautify garden or landscape, Pæonies should contribute their quota to the general effect. The flowers are deliciously fragrant and freely produced, averaging in size 8in. to 10in. across, in colours of vivid scarlet, pale rose, white, deep purple, crimson, lavender, etc. They are perfectly hardy. Their culture is of the simplest, any good deep garden soil will suit them, though it is advisable to plant them where they may remain for years undisturbed. A top dressing of good old manure applied every spring after they commence to grow will meet their requirements, and they will increase in size and magnificence year after year.

VERY SPECIAL PRICE.—All colours, mixed, strong roots, full of buds, 3 for 2/6; 6 for 4/6; 12 for 8/6; 25 for 15/-; 100 for 55/-. Pink, crimson, scarlet or white may be had separately, if desired. The set of 4 (one of each colour), 4/-; 2 of each colour 7/6; all deliciously scented.

PÆONY, QUEEN VICTORIA.—Magnificent pure white, delicately scented, and beyond all question the finest pure White Pæony in existence. No description can do justice to this glorious Pæony. It must be seen. Extra strong roots. 2/- each; 3 for 5/-; 6 for 9/6; 12 for 17/6; (worth 7/6 each). Special photographic reproduction, full plate size, of this Pæony, free with all orders.

GOLDEN CANARY.—This is another lovely golden tinted Pæony, a colour very scarce; it will delight all who grow it, 1/6 each; 3 for 4/-.

NOW VERY BEST TIME TO PLANT PÆONIES.

HARDY CYCLAMEN.—Everybody knows the greenhouse Cyclamen (*Cyclamen persicum*), but very few people have any idea of the exquisite beauty of the hardy Cyclamen, or they would be in every garden, for once planted they are a continual joy year after year for a lifetime. The roots often grow to an enormous size, and throw up from 200 to 300 flowers each, and they continue to flower for six months, and sometimes more. They are deliciously fragrant. Magnificent foliage, variegated with different shades of green, helps to show off the flowers to a remarkable degree. The veining and markings of the foliage show a network of Nature that cannot be described on paper. Plant them on the border, on the rockery, odd nooks of the lawn, or in the grass round the roots of large trees; they are delightful. The roots require no lifting or further attention after once planting; they are perfectly hardy, and will take care of themselves. Bargain price (large stock), 6 for 1/3; 12 for 2/-; 25 for 3/6; 50 for 6/-; 100 for 11/-. **LARGER (3-year-old) BULBS.**—6 for 2/-; 12 for 3/6. A few extra Giant Bulbs, 5 to 6 years old, 3 for 1/9; 6 for 3/-; 12 for 5/6.

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A GLORIOUS NEW HARDY PERENNIAL.—Now first offered by me. Award of Merit, Royal Horticultural Society. **GEUM COCCINEUM Mrs. BRADSHAW.**

This is, without a doubt, one of the finest and most beautiful hardy border plants ever introduced. The brilliant scarlet flowers are borne on strong stems in the greatest profusion for many months in succession, monstrous in size and substance compared with other Geums. They are so easy to grow, that merely plant the roots in any soil or situation and you will have such a dazzling blaze of colour as you never had before. The garden will glow with a radiant

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Giant Flowering Hybrid Perpetual Roses.

General favourites everywhere on account of their hardiness, abundant blooming qualities (being scarcely ever out of flower the whole season), and robust, vigorous constitution.

MRS. JOHN LAING.—Rich, satiny-pink, delicious fragrance; blooms constantly. **MARCHIONESS OF LONDONDERRY (New).**—Ivory-white, pointed globular; one of the grandest Roses yet offered. **ULRICH BRUNNER.**—A beautiful hardy Rose, in flower and foliage. The former is large and cupped, bright cherry-red, and very fragrant. The flowers are borne on long flower-stalks, almost devoid of thorns. **BARONESS ROTHSCHILD.**—An exquisite shade of satiny-pink. **PAUL NEYRON.**—Imperial pink of the richest shade, large and beautifully formed, the largest Rose in cultivation. **GENERAL JACQUEMINOT.**—Bright, scarlet-crimson, an abundant bloomer; large and fine double flower. **FRAU KARL DRUSCHKI.**—The sensational new snow-white Hybrid Perpetual Rose, hardy, free-flowering, and superb formation of blossom. All will certainly grow this charming new Rose. The Queen greatly admired this grand new Rose at the National Rose Society's Show. **MRS. R. G. SHARMAN CRAWFORD.**—Deep rosy-pink, outer petals shaded with pale flesh. A beautiful Rose in every respect. **FISHER HOLMES.**—Magnificent scarlet, shaded with deep velvety-maroon; very brilliant, large and full. **CAPTAIN HAYWARD.**—Bright crimson-carmine, an entirely distinct shade of colour, of perfect form, and very sweet. **MERVILLE DE LYON.**—The silvery-white blooms are of enormous size and substance, with high pointed centre, and last long in good condition. The blossoms are often shaded or tipped a lovely shell-pink. **HUGH DICKSON.**—Intense brilliant crimson, shaded scarlet; it is very fragrant, and has been awarded the gold medal at the N.R.S., and numerous F.C. certificates.

All the above Hybrid Perpetuals are strong, robust, two-year-old trees, every one of which flowered abundantly last season. Any 6 for 4/-; the set of 12 (one of each), 7/6. Extra large selected, 6 for 5/6; 12 for 10/-.

FRAU KARL DRUSCHKI.—The sensational new show-white Hybrid Perpetual Rose, hardy, free-flowering, and superb formation of blossom. All will certainly grow this charming new Rose. The Queen greatly admired this grand new Rose at the National Rose Society's Show. 3 for 4/-; 6 for 7/6; 12 for 12/-. Planted beside the velvety-crimson black Rose, the effect is grand. Two crimson-black and two F. K. Druschki for 5/-; 4 of each for 9/-; 6 of each, 12/-.

Mrs. H. WALLACE, Merion, Co. Dublin, writes, November 19th:—"The F. K. Druschki Rose I had last year bore the largest Rose I ever saw in my life, and is still flowering now."

MAGNIFICENT TEA ROSES for the garden or greenhouse, all hardy, grown in the open, never under glass, therefore certain to do well and flower abundantly. My pet selection. Contains six that are indescribably beautiful in colour and formation of bud. 3 for 2/6; the 6 for 4/6; 12 for 8/-.

12 Superb Tea, and Hybrid Tea Ever-blooming Roses.

Twelve magnificent varieties for garden or greenhouse, nearly all gold medal winners, flowers continuously the whole season. The Roses are of great substance, with remarkably long, handsome buds and shell-petalled flowers of most exquisite soft shades and distinct tea-like fragrance.

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Gold Medal N.R.S.; the colour is unique among Roses, and the flowers are immense and superb in formation. **MDME. A. CHATENAY,** pale fawn-pink, shaded salmon; a charming Rose, beautiful beyond description. **GRUSS AN TEPLITZ,** deep vermilion, shaded red and brownish-velvet; ever-blooming variety. **CAROLINE TESTOUT,** bright satiny rose, with brighter centre, full and globular; very free and sweet; one of the most valuable Roses in the collection. **KAISERIN AUGUSTA VICTORIA,** Hybrid Tea Rose, soft pearly white, lightly tinted with lemon in the centre. **LYON ROSE,** blooms large, with broad petals, very full and globular in form, lovely colouring of shrimp-pink at end of petals, centre coral-red or salmon-pink, shaded chrome-yellow; very sweetly perfumed. **SOUVENIR DE PIERRE NOTTING,** apricot yellow, shaded with golden yellow and suffused with orange; fine long buds. **MME. JULES GROLEZ,** clear; silver-rose, shaded yellow. The buds are long and pointed. A really magnificent Rose. **MADAME ANTOINE MARI,** a really grand Rose. Should be grown by all Rose-lovers; one of the most perfectly-formed flowers, and of such delightful tints that all must love it.

Any 3 for 4/-; any 6 for 7/6; the set of 12 for 12/-. **CLIMBING ROSES.**—A Wonderful Offer! Half Price.—Having a grand stock of Climbing and Rambler Roses, all grand trees, in splendid condition, no need for bare walls, ugly places, arches and trellises not covered, etc. Plant these freely, they will flower in the wildest profusion anywhere and everywhere. 6 for 3/-; 12 for 5/-. No more at this bargain prices when these are cleared.

3 Great Favourite Roses.

GLOIRE DE DIJON, yellow, shaded with salmon, lovely buds, and superbly fragrant. **W. A. RICHARDSON,** deep rich orange-yellow. **MARECHAL NIEL,** rich deep yellow, the most glorious of Roses. These three are most deservedly popular as wall Roses, and to cover arches, pillars, etc.; all strong, robust trees. The set of 3 for 4/6; 2 of each for 7/6.

THE NEW TOM THUMB ROSE, for edging, beds, or pots. —The sensational New Dwarf Rose **MDME. NORBERT LEVAVASSEUR.**—As a pot Rose for greenhouse or window if has no equal, for beds and borders it is simply a mass of crimson the whole of the season, producing such a grand, telling effect that once seen it is not readily forgotten; it is very hardy, and will thrive in the poorest soil. Only grow about one foot high, and bloom so profusely as to entirely hide the foliage. The foliage is of a beautifully deep glossy green, and is never attacked by disease. It flowers in large clusters from June to November. It is always in bloom. This Rose will prove invaluable for bedding purposes and for pot culture. It has already obtained the five following Prizes, viz.:—Paris Exhibition (May), Large Silver Medal; Paris Exhibition (November), 1st Class Certificate of Merit by the National Horticultural Society of France; London (April), 1st Class Certificate of Merit, R.H.S. of London; London (June), 1st Class Certificate of Merit, National Rose Society; Orleans (August), Gold Medal, highest award, with congratulations from the Judges. Now offered by me, price 1/6 each; 3 for 4/-; 6 for 7/-; 12 for 12/-. Packed free and carriage paid.

Capt. HUME, Loch Fyne, writes, October 15th:—"The Madame Norbert Levavasseur you sent me made such a pretty border, I want two dozen more. They are still budding and flowering."

THE NEW TOM THUMB, BABY DOROTHY PERKINS.—This fine novelty will go well with the well-known variety, **MDME. Norbert Levavasseur,** for bedding, massing, edges to borders, or pot culture in window or greenhouse. The commission, recognising in it a superior plant, proposed unanimously to give it the highest award, viz., a gold medal. Price now reduced from 5/- each to 1/6 each; 6 for 7/-; 12 for 12/-. White Tom Thumb Rose, same price as above, or the set (3), one of each colour, 4/-.

A SUPERB NEW CLIMBING ROSE, gold medal winner at the National Rose Society (Blush Rambler), vigorous growing, and flowers in the wildest profusion. The colour is very like to apple blossoms, so soft and pleasing that a tree in full flower is not readily forgotten. All will surely want this Rose when better known. 3 for 4/-; 6 for 7/6.

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Arabis, dbl. white	6 „ 6d	Lily) ...	2 „ 6d
Anchusa capensis,		Lilium candidum,	
lovely blue ...	6 „ 6d	beautiful Ma-	
Anchusa, true		donna Lily, flow-	
Dropmore ...	2 „ 6d	ering bulbs ...	2 „ 6d
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Agrostemma Flos-		tricolor, or mixed	9 „ 6d
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spurred ...	9 „ 6d	Tree Lupin, yel-	
Aquilegia, Kel-		low or white	3 „ 6d
way's mixed ...	12 „ 6d	Lychnis, scarlet ...	6 „ 6d
Brompton Stocks,		Linum, blue or	
Kelway's choice		white Flax ...	12 „ 6d
mixed ...	9 „ 6d	Lavender bushes,	
Brompton Stocks,		true English ...	3 „ 6d
scarlet, pink or		Lily of the Valley,	
white ...	6 „ 6d	flowering crowns	12 „ 6d
Campanulas. The		Malva, white or	
following 1-year-		pink ...	12 „ 6d
old: Grandis,		Montbretia ...	20 „ 6d
persicifolia, car-		Pansies, giant,	
patica, grandifl-		mixed ...	15 „ 6d
ora, turbinata		Pansies, separate,	
Campanula, mixed		all colours for	
alpinæ for		bedding, see	
rockery ...	9 „ 6d	catalogue ...	12 „ 6d
Campanula pyra-		Periwinkle, large	
midalis, blue or		blue ...	6 „ 6d
white ...	4 „ 6d	Physalis, giant	
Canterbury Bells,		Chinese lantern	12 „ 6d
new pink, white,		Pinks, Mrs. Sinkins	
or pale mauve ...	12 „ 6d	or Her Majesty	
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all colours, mx'd.	15 „ 6d	doubles ...	12 „ 6d
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double mixed ...	9 „ 6d	dum ...	9 „ 6d
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white, crimson or		Polyanthus, choice	
yellow grounds	6 „ 6d	mixed or gold-	
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Christmas Roses,		(Tritoma) ...	2 „ 6d
full of buds ...	2 „ 6d	Rose Champion ...	12 „ 6d
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maximum King		John's Wort) ...	4 „ 6d
Edward, The		Rosemary ...	2 „ 6d
Speaker, Mrs.		Sweet Rocket,	
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Cistus, Rock ...	6 „ 6d	Saponaria ocy-	
Commelina, lovely		moides, pink ...	12 „ 6d
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Coreopsis grandifl-		rockery ...	9 „ 6d
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Cornflower, Kel-		Silene compacta,	
way's Emperor		crimson or pink	15 „ 6d
William, blue ...	15 „ 6d	Solomon's Seal,	
Delphinium, dark		giant variety ...	6 „ 6d
or pale blue ...	6 „ 6d	Southernwood (Old	
Daisies, large dbl.		Man) ...	2 „ 6d
red or white ...	20 „ 6d	Stachys lanata,	
Dianthus, Kelway's		Lamb's Wool ...	9 „ 6d
grand doubles ...	12 „ 6d	Statice (Sea Lav-	
Dielytra, Bleeding		ender) ...	6 „ 6d
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Dog's-tooth Violets		4 „ 6d	
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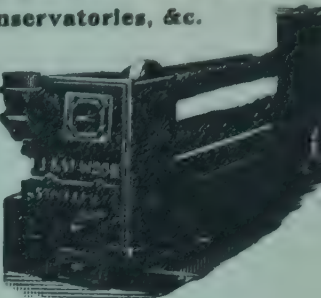
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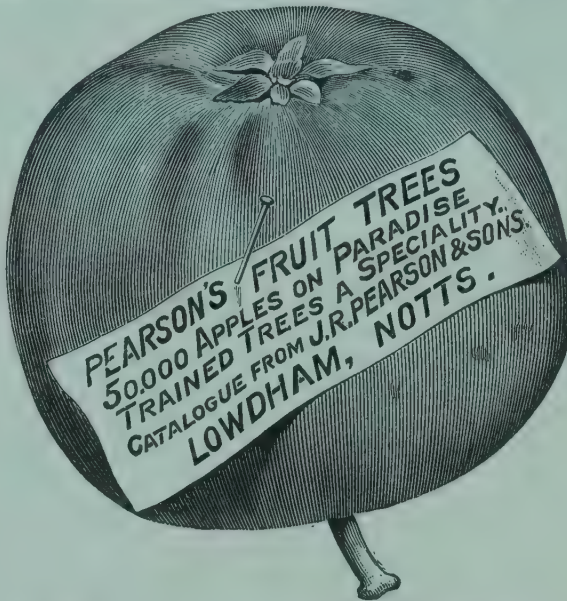
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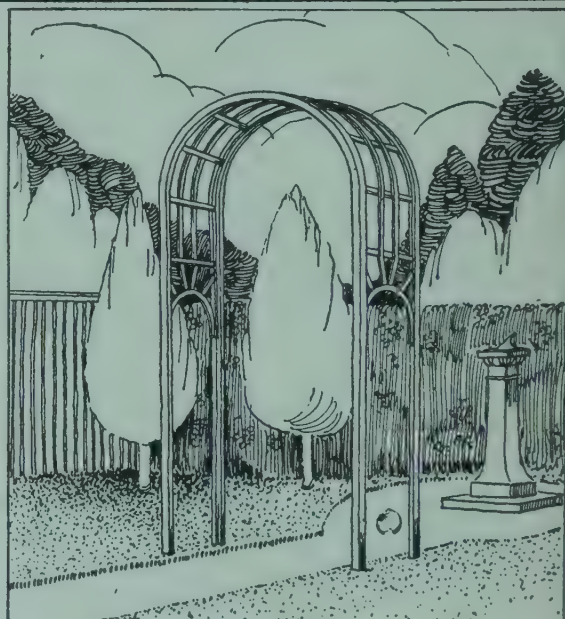
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D. Bois, cherry.
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 Eclairer, carmine.
 Flambeau, orange.
 Esclairemond, rose-lilac.
 Etna, orange-scarlet.
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Le Siecle, salmon-rose.
 Forte de France, salmon.
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 Mrs. J. Harkness, rosy-salmon.
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E. Danzanvilliers, pinkish-lilac.
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Selma, pale salmon.
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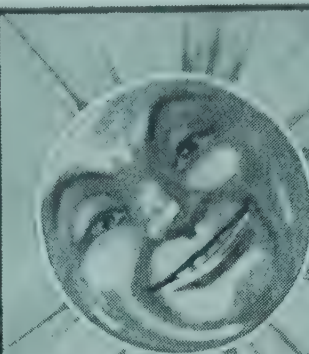
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THE GARDEN.

No. 2140.—VOL. LXXVI.

NOVEMBER 23, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

*The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Fruit Research Plantation for South-Eastern Counties.—At a meeting of the Governors of the South-Eastern Agricultural College, Wye, on Monday, the 11th inst., the proposal to establish a fruit research plantation in the South-Eastern District was considered. It was decided to accept the responsibility of administering such a plantation with the aid of the grant of £500 offered by the Board of Agriculture. We hope that the researches and experiments will be of a practical as well as a scientific character.

Erigeron Quakeress.—Hardy, elegant, free-flowering and profuse, this is destined, we think, to figure with the indispensable plants of the good herbaceous border in the near future. Indeed, it would do so the moment it is known, since its good attributes are as clear as the day. The colour, which in the summer-time is deepest mauve, assumes a paler tone in its latter-day developments, while there is a refinement withal—habit and flowering alike—that is not given to any of the forms of *E. speciosus*.

The Rock Garden at Kew.—Further alterations are now proceeding in the rock garden at Kew. In the position formerly occupied by the dripping well will be a ravine, through which will flow a cascade. The latter, after passing through a series of four little waterfalls, will empty into a bog garden. When completed, the alterations will form a great improvement, and will be quite in keeping with the general construction of the rock garden, which resembles the rocky course of a stream such as may be met with in the side valleys of the Pyrenees.

Rose Gloire de Dijon as a Standard.—One is fairly accustomed to seeing this Rose trained to walls and fences, but not so often as a standard. At the beginning of November we had quite a number of expanded flowers, and several more buds fast developing on a standard specimen. Of no other variety in standard form could this be said. Should anyone be trying this variety for the first time in this way, we would add, do not prune too hard, and if a shoot or two is long enough to arch over and tie to a stake, so much the better. Practically every bud will break and flower.

Variation in Ferns.—The variation in *Nephrolepis exaltata* is wonderful, and is all the more remarkable from the fact that though, according to the "Dictionary of Gardening," the original species was introduced as long ago as 1793, it is only within the last decade or so that this extreme variability has manifested itself. This was not due to it being but little grown, for *N. exaltata* has long been a popular market Fern, especially in the United States, where it is commonly known as the Boston Fern. The first plumose forms, too, came to us from across the Atlantic; but now

we have in this respect outdone the Americans themselves, the most extreme form in mossy development being represented by the variety *Willmottæ*, which was given an award of merit by the Royal Horticultural Society on November 5.

Oil from Sunflower Seed.—The annual report on the work of the Imperial Institute during 1911, just published, contains the following note on Sunflower seed: "A sample of this seed was received from the Sudan. The kernels yielded 47.9 per cent. of oil, equivalent to about 22 per cent. expressed on the whole seed. The oil was bright yellow and somewhat viscous, and would be suitable for edible purposes after refining. The residual cake would be suitable for use as a feeding stuff. So far Sunflower seed has not been largely worked in the United Kingdom as an oil seed, but experiments in its utilisation have been made recently in Hull."

Winter-flowering Sweet Peas.—In Bulletin No. 319, just issued by the Cornell University, Ithaca, New York, Mr. A. C. Beal describes in detail experiments which have been conducted with winter-flowering Sweet Peas at the Cornell University. We have on some previous occasions dealt fully with the *Télemly* varieties, and also those that originated with Mr. Engelmann of Saffron Walden. The trials at Cornell University were conducted mainly with a view to ascertaining the time it took from seed-sowing to get plants to the flowering stage. The Engelmann varieties took from 101 to 110 days; Paul's Improved *Télemly* varieties, 92 to 160 days; and Arkwright's *Télemly* varieties, 88 to 107 days. Descriptions of all the varieties sent for trial are included in the bulletin.

The Pollination of Fruit Blossom.—In the current issue of the Journal of the Royal Horticultural Society, Mr. Cecil H. Hooper's lecture on the above subject is printed in full and makes most interesting reading. We quote the following from the summary: "It seems as if in the open field or garden Strawberries are pollinated by the movement of the air. Raspberries and Loganberries need insect pollination. The Raspberry is more dependent on insect pollination than the Loganberry. Hive bees are very fond of Raspberry blossoms, and even more so of those of Loganberry. In Gooseberries and Currants it is of the utmost importance to have plenty of hive or bumble bees near, as no fruit is set without them. They are also a necessity in the case of Pear, Apple, Cherry and Plum. With our present knowledge it seems advisable in planting to alternate the variety in each one or two rows, choosing varieties that blossom at about the same period. In gardens do not plant single trees of a kind, all trees of one variety together, but rather intermix the varieties. Keep hive bees, especially in suburban gardens and on large fruit farms, and in districts where large areas of the same kinds of fruit are grown."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Bardou Job Flowering in Mid-November.

That excellent Rose Bardou Job is flowering still on the base of an outside conservatory wall, where it is trained to climb horizontally. I have to-day (November 16) gathered sufficient of these Roses to fill a vase, and several buds—if the frost will allow—will give yet another vaseful in a few days. This Rose commenced flowering on my conservatory in May. The very decided otto of Rose perfume is as strong now as it was in the hot weather.—ELEANOR G. SHELLEY, *Alresford, Hants.*

Nicotiana affinis in November.—Of late years I have been shy of using this good plant in flower borders because of its way of drooping with half-closed flowers in daylight; but two days ago, in the middle of a time of bitterest winter weather, it showed itself to be a valuable hardy flower for cutting. A belated patch, sheltered by a group of Hydrangeas, bore several shoots of perfect bloom—the flowers wide open, evidently taking the dim wintry light for twilight. A good bunch of Iris stylosa had just been brought in, and I was seeking for something to accompany them. The white Tobacco seemed to be the immediate answer to the search, and, with some small branches of bright green foliage of Skimmia oblata, has made as charming a winter bouquet as one could wish to see.—G. J.

Large-flowered Climbing Roses.—In a recent note a contributor regretted there were so few Roses of this class, but he overlooked those two grand deep crimson, scented flowers Ards Pillar and Ards Rover, Hybrid Teas, eminent also for bold, handsome foliage and perpetual flowering, while they often make a growth of 9 feet in a season. Lady Waterlow was very rightly named. I might also mention Johanna Sebus, reddish blush, of the Dijon breed, exquisitely scented. The term "climbing" properly refers to rambling Roses, but there is a class of half-rampant Roses suitable for pillars that are very welcome, such as Climbing W. J. Grant, Climbing Lady Ashtown and Climbing La France, all well worth attention. A very fine single, rapid climber, with large blooms produced in clusters of rich pink, is American Pillar. Billiard et Barre is a showy pillar Rose of deep gold, Gustave Regis is pure yellow, and Climbing Frau Karl Druschki white; while such Hybrid Perpetuals as Hugh Dickson, J. B. Clark and Bardou Job (Hybrid Tea), of fiery crimson, are good pillar Roses, also Mme. Jules Gravereaux in the creamy blush colour. I think also that the rugosa hybrids Juliet (fiery orange) and Conrad Ferdinand Meyer (silvery blush) will make useful pillars.—GEORGE BUNYARD, *Maidstone.*

Bitter-pit in Apples.—Last year I drew attention to the remarkable prevalence of the Apple trouble known as bitter-pit, and in THE GARDEN for March 30 last gave a table comparing the weather with the prevalence of the disease in different years. The disease has been known for at least fifty years, and up to the present its occurrence seems to depend upon the weather conditions and the water supply more than upon anything else. This season the trouble is, fortunately, rarely met with. I have seen it in very few varieties in any part of England, either at exhibitions, in the market, or in the garden itself. Warner's King has suffered in some places, and possibly some few other soft-fleshed fruits, but to nothing

like the extent to which they suffered last year. I have not met with it in any hard-fleshed Apples this season. These facts make a comparison of this season's temperature and rainfall with that of last most interesting, and, as will be seen, the comparison supports my original suggestion as to the connection between the weather and the disease. I give last year's weather record for August and September and that of the corresponding months of this year side by side, so that comparison may be the more easily made.

		1911		1912	
		Aug.	Sep.	Aug.	Sep.
Mean temperature (degrees)	..	67.1	59.1	57.2	52.6
Highest in screen	..	96.2	91.0	87.6	66.0
Lowest in screen	..	43.2	35.4	41.2	32.5
Mean soil tem., 1 ft.	..	67.7	60.3	60.0	55.3
" " 2 "	..	66.6	61.3	59.8	55.3
" " 4 "	..	64.2	61.6	59.4	56.8
Rainfall (inches)	..	0.62	1.01	1.77	2.99
No. of days of rain	..	6	9	26	4
Total rain, May to September	..	5.73in.		13.09in.	

—SCIENTIST.

A Useful Winter Endive.—Sutton's Winter Lettuce-leaved Endive is being much enjoyed here just now, used as a simple salad with cheese. We blanch it by tying the plants up tightly with raffia when they have attained full growth, and placing a large inverted flower-pot over each, with a crock over the drainage hole and a handful of soil thrown on top of that. This little extra trouble ensures a much finer and better blanched plant than the ordinary slipshod method of laying slates on the top. I even go to the trouble of covering a number every week (on a dry day) and numbering the pots, so that we may know which to use first. After three weeks or a month we find large, crisp heads of a beautiful ivory whiteness and with a flavour reminiscent of Cob Nuts, far superior, in my opinion, to that of any of the curled Endives that are so much grown, and which are, after all, more in the nature of a simple garnish to a salad than an appetising adjunct, such as the finely-flavoured plant of which I am writing. I would mention that we get our best Endive here from plants that have been put out on beds cleared of Daffodils. They evidently like the bone-manure that remains in the soil.—F. HERBERT CHAPMAN, *Rye.*

Saxifraga burseriana "tridentata."—I for one am grateful to Mr. Farrer, page 574, for his timely lifting of the veil from the above absurd name, and for furnishing, in his usually lucid authoritative style, not only the correct name, but the "why and the wherefore" of it at the same time. To me the name was ever a puzzle, and I well remember, when first seeing it, asking the reason why and pointing to its meaninglessness and absurdity. The only excuse for the error is the not very distant step between "tridentina" and "tridentata," and the corruption, doubtless, has been due to bad writing, a blurred or indistinct labelling, or similar cause. I am interested, too, to know more of the history of this fine form, which, curiously enough, I characterised on seeing it as not far removed from the true S. b. major of the Dolomites. It is, indeed, so far as my plant of it at present indicates, a somewhat more tufted form, major spreading laterally more than the others. Now one knows that major, Gloria, magna and tridentina are, as it were, an exclusive set apart—a glorious quartet—each an aristocrat in its way, and as such fitted for association with the choicest and best. They are all desirable, too, not for their inimitable beauty alone, but also because, flowering at divers times, they ennoble their race thereby while enriching our rock gardens and alpine-houses for a more extended season

with precious gems of which a few years ago we had not even dared to dream.—E. H. JENKINS.

The Deciduous Cypress Fruiting.—The note by "W. D." and the illustration showing a cone-bearing branch of the above-named tree, page 562, November 9 issue, are very interesting. In the gardens at Cadland Park, near Southampton, there is one of the finest specimens of the Deciduous Cypress in the United Kingdom. For more than ten years I had charge of the gardens, and while there noticed fruits on the branches several times. I had the tree measured. Ten years ago it was more than one hundred feet high and measured 14 feet round the trunk at 4 feet from the ground. The position was at the head of an ornamental pond; the "knees" grew up from the sloping grass bank, and many roots permeated the mud at the bottom of the pond. The trunk had a clear rise, free from branches, for about twelve feet. Two other specimens, about thirty-five feet high, grew in boggy ground near. More trees should be grown in the country than there are at present, but in suitable positions.—G. G.

The Grading and Packing of Fruit.—In reading your report of the Kent Commercial Fruit Show on page 568 of November 9 issue, I see mention made of the Federation boxes. It would be interesting to know the measurements of these and where they can be obtained. I am also interested to know what a London bushel of Apples is, and especially how it is arrived at. Are the Apples measured? I am told that most growers send 40lb. to 42lb. of Apples for a bushel, and therefore I judge it must be a measure, for surely a grower cannot fix the weight of his Apples at a variable total if they are sold by weight. In the Midlands Apples are sold by the peck, and 16lb. is the weight of a peck, so 64lb. make a bushel. It seems to me that we must be selling on very bad lines if 42lb. suffice for a London bushel. Pears and Plums are worse still, for 18lb. are supposed to be a peck. Seeing that an Act of Parliament was passed many years ago making the selling of fruit by measure illegal, would it not be better if all fruit were sold by the imperial stone or hundredweight? If this were done, market reports would be understandable and of value to readers all over the country, whereas at present they are misleading or, as is often the case, convey no information whatever to the reader. Passing on to another subject, your correspondent "B.," page 562, says, "Marie Louise is generally grown on a warm wall." My experience is that on a warm wall it blooms so easily as to be generally destroyed by spring frosts, whereas on a wall facing north-west or east it succeeds admirably. Again, in the case of Plums, I suppose the number of trees of Victoria planted on walls equals nearly all the other varieties put together, and yet the fruit is spoilt on a warm wall, and it is perhaps the worst of all Plums for training owing to its habit of growth. The best way to grow Victoria is as a standard or half-standard and keep the pruning-knife away from it, and reserve the walls for those varieties which are improved by being planted on them.—A. H. PEARSON. [The size of the boxes for fruit was given in an article on fruit-packing on page 440 of our issue for August 31. It is 20 inches long, 14 inches wide and 10 inches deep. At the time of going to press we have not been able to ascertain where they can be obtained. The so-called bushel sieve sent to the London market holds, approximately, 3½ pecks. We agree with Mr. Pearson that selling by weight is by far the best.—ED.]

Daffodils in an Orchard.—From time to time we have called attention to the picturesque effects that may be obtained by growing Daffodils in grassland. At no time do these flowers appear to greater advantage than when grown under the partial shade of old Apple or other fruit trees. The accompanying illustration depicts a charming spring scene in Mr. G. Hawker's orchard at Strode, Ermington, Ivybridge.

Edwardsia or Sophora grandiflora.—As so much has been said in favour of the Kowhai in your columns of late, it may be worth while stating that it is hardy and flowers well in some parts of the South-West of Scotland, especially near the sea. It cannot be considered a good tree for inland gardens in Scotland, as, so far as I know, there have been no successes with it in the open in gardens away from the sea. I know of a few places where it has been established for a good many years, and where it flowers well annually. It is very beautiful with its handsome clusters of golden yellow flowers.—S. ARNOTT.

Pentstemon Newbury Gem.—Any grower desirous of securing a fine subject for massing could not do better than choose the above-named plant. It is a dwarf, compact Pentstemon, producing innumerable scapes covered with small crimson-scarlet flowers. There are also a White Newbury Gem and a Pink Newbury Gem, the latter being a beautiful soft shade of rosy pink, and is not only valuable for bedding purposes, but is suitable for cutting and house decoration. The plants bloom throughout the summer and autumn months if the leading shoot is pinched out when the flowers are passed, thereby inducing many side growths to form, which soon give a good account of themselves. In addition to those already quoted are Myddelton Gem, a pleasing shade of pink, and Southgate Gem, which is scarlet in colour.—T.

Geranium wallichianum.—From time to time notes have appeared in commendation of this plant, and yet it is but comparatively rare that one finds it in collections of hardy plants. This, to me at any rate, is somewhat surprising, and can only be, I think, because its merits are not known, as I know of few plants which better deserve a place in the hardy flower garden. Its season of flowering is a long one. A plant in these gardens has been flowering profusely for over two months, and has every appearance, weather permitting, of continuing to flower for some time to come. It is certainly one of the most charming plants we have at this season. It is quite a good border plant, but I prefer it on a sloping bank or on the rockery, if one has room for it, as it soon covers a large space, and would be out of place, besides being a danger to other plants, on any but a large rockery. The flowers are a delicate shade of blue, with a central zone of white, with dark lines radiating from the centre to nearly the outer edge of the petals. The plant grows from 3 feet to 6 feet high.—J. D. HALLIBURTON, *Botanic Gardens, Bath*.

FORTHCOMING EVENTS.

November 28.—Hull Chrysanthemum Show.

December 2.—National Chrysanthemum Society's Floral Committee Meeting at Essex Hall at 3 p.m.

December 3.—Royal Horticultural Society's Meeting and Perpetual Flowering Carnation Society's Show (two days) at Vincent Square, Westminster.

SOME WINTER EFFECTS OF FLOWER AND SHRUB.

NO garden, if thoughtfully planted, need be without an appreciable amount of bloom on hardy plant and bush during the winter months. No reasonable person expects to find flowers flourishing in actual frost; but in all the milder spells that occur throughout the cold season there are a number of flowers that may be trusted to appear faithfully. Towards the end of November there is the large Christmas Rose, coming into bloom a good month before the others of its kind. The flowers are of large size and great substance. By the middle of December there will be the yellow Winter Jasmine, that will go on for some weeks; and from November onwards, in all open weather, flowers may be gathered from the charming Winter Iris (*I. stylosa*). It is true that in the last few winters, since there have been rainy and comparatively sunless summers,

the sweetest of the garden's flowers. The Winter Sweet (*Chimonanthus fragrans*), with its excellent and penetrating perfume, is another shrub-bloom of midwinter, though it is hardly showy enough to class among flowers of special effect. The Witch Hazel (*Hamamelis*) bears some resemblance to the Winter Sweet, in that the blossoms come closely set on the leafless shrub and have the same kind of yellow colouring. But though the petals are much narrower, and are curiously twisted, the bloom is so abundant that it has a distinct effect as a flowering shrub; moreover, it is hardier and can be planted in the open.

But though we have all these precious winter flowers, the greater value of the garden will be in the deep, rich colouring of our best evergreens—Yew, Box, Holly, Cypress, Bay and Ilex, to name only some of the more important. Then, of lowlier shrubs, *Berberis Aquifolium*, in its many colourings of green, red and varying shades of ruddy bronze is of the utmost value. There are also *Skimmia*, *Andromeda* and its allies, and the beautiful *Alexandrian Laurel* (*Ruscus racemosus*). *Rhododen-*



AN EFFECTIVE GROUPING OF DAFFODILS IN AN ORCHARD AT STRODE, ERMINGTON, IVYBRIDGE.

this capital plant has been more shy of bloom. It is a native of Algeria, and it would seem probable that a vigorous bloom may depend a good deal on such a thorough ripening of the rhizome as it always receives in its natural habitat. It is therefore desirable to give it a dry and sunny place, such as on a slightly-raised border against a south wall, in rather poor soil; for we find that in richer ground it produces very large leaf growth and but little bloom. There is also a beautiful white variety. Also from November onwards *Czar Violets* should be in flower. After Christmas, *Snowdrops* and the little yellow *Winter Aconite* make charming effects in wild ground, such as beneath trees in thin woodland; the *Winter Aconite* will even grow under *Beeches*.

Periwinkles are flowers of February, prettiest also on banks in wild ground. The same month brings the blossom of *Daphne Mezereum*, whose low-toned pinkish bloom, coming before the leaves, reminds one, by its strong, pleasant scent, of the several others of its family that are among

drons, especially those of the *ponticum* class, are in their deepest and glossiest foliage. Besides these, we have the evergreens of grey and glaucous colouring—*Junipers*, *Deodar* and *Picea pungens*, *Retinospora* and others. Some of these also take on a ruddy tint in winter. But there are trees and shrubs of quite other colouring; a whole range of gold-variegated varieties that can be used with excellent effect, especially if grouped rather near together. Of the trees, the *Golden Hollies* and *Cypresses* are among the brightest, and among shrubs the *Golden Privet* is of fine colouring and has the good habit (although it is really deciduous) of holding its leaves till well after Christmas. The gold-variegated *Elæagnus* is also one of the handsomest of shrubs with coloured leaves. The gold-splashed *Euonymus* is only hardy in the South; even at an hour's journey south of London it is generally spoilt by frost. The hardy *Bamboo*, *Arundinaria japonica* (more commonly known in gardens as *Bambusa Métake*), is bright and cheerful through the worst of the winter.

Cotton, Santolina Chamæcyparissus; Lavender, Lavandula spica; United States Sage Bush, Artemisia tridentata; Tree Purslane, Atriplex Halimus; several Tree Ivies, Hedera Helix varieties; and numerous conifers, especially varieties of Cupressus.

A LITTLE-KNOWN FLOWERING SHRUB.

(STYRAX JAPONICUM.)

THIS is a large deciduous shrub or small tree, native of Japan. A fairly sheltered position is the most suitable, as, although the flowers do not open till June, on several occasions we have had the buds on trees in open situations ruined by late spring frosts, while a tree in a sheltered position has entirely escaped. The soil should be fairly light and well drained, a mulching of leaf-mould and manure being beneficial in summer. Nature has disposed the branches in a somewhat flat, spreading manner, the better to show off the white flowers. These are drooping, bell-shaped, about half an inch across and very freely borne on the branchlets, appearing several together from the axils of the leaves. As Styrax japonicum ripens seeds freely in this country, it should soon be fairly common, for if not hardy in cold districts, it is worth a place on a wall. The fruits are egg-shaped and the size of a hazel-nut. A. O.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.

HYBRID TEAS FOR EXHIBITION.

(Continued from page 580.)

Mrs. A. E. Coxhead (S. McGredy and Son, 1910).—It was rather surprising to me to see this Rose in practically every winning box in the early shows this year, and it also turned up smiling at the autumn show. It is, no doubt, accounted for by the fact that its shape is so nearly always perfect; and if the same could be said of its colour (as it can be said of its scent and habit of growth) it would indeed be one of the "great" Roses. But its colour is undoubtedly its weak point, and it is difficult to catch it right. It does not like tying, and shading does not appear to remedy the defect; but when this is said, one has said the worst. I hardly know a Rose that so frequently comes a perfect shape, and this, after all, is the main thing with the exhibitor. A big flower of fine colour with a bad split does not, and should not, count as much as a good flower perfect, except that it is a bit off colour. I do not mean a bad colour for the variety, but one that is naturally not a good colour. Mrs. A. E. Coxhead is one of these, Mrs. Stewart Clark another. No doubt Mr. Pemberton's eulogy of this flower when he described it as the best new Rose of the year has had a great deal to do with its popularity. I should not be doing this Rose justice if I omitted a reference to its perfume. It is delicious, and is as strongly marked in November as it was in June. It is a real good autumnal, and is seen at its best under artificial light, electric light for preference. It was awarded the gold medal of the National Rose Society at the Salisbury Show in 1910, having

previously received a card of commendation at the autumn show in 1909.

Mrs. Amy Hammond (S. McGredy and Son, 1911).—Another gold medal Rose of the National Rose Society, also awarded at the Salisbury Show in 1910, and those who have grown this Rose have nothing but praise for it. The raiser calls it "everybody's Rose"; it certainly has been very pleasing with me. I had some splendid flowers of it early in the season, good enough for any box, and I venture to think when better known it will be very popular. It found its way into a good many boxes this season, although it was only sent out last year. Its colour is not exactly describable in a few words. Flesh with a peach flush is as near as I can get it. The rosarian's "peach" is something quite distinct from the colour of the fruit. The flower is of excellent shape and size, sweetly perfumed, and the plant of vigorous, good branching habit. A Rose to be obtained at the earliest opportunity.

Stewart Clark, Frau Karl Druschkis and others—a great victory this. It was equally good at the "National," and was very well shown at Belfast. I have found it remarkably easy to grow, and, notwithstanding its shape and enormous number of petals, it opens well and freely. The petals have fine substance, and there is nothing tissue papery about them. Its foliage is remarkably strong and leathery, and has seven leaves instead of the usual five. Altogether a very distinct and beautiful Rose.

Southampton.

HERBERT E. MOLYNEUX.

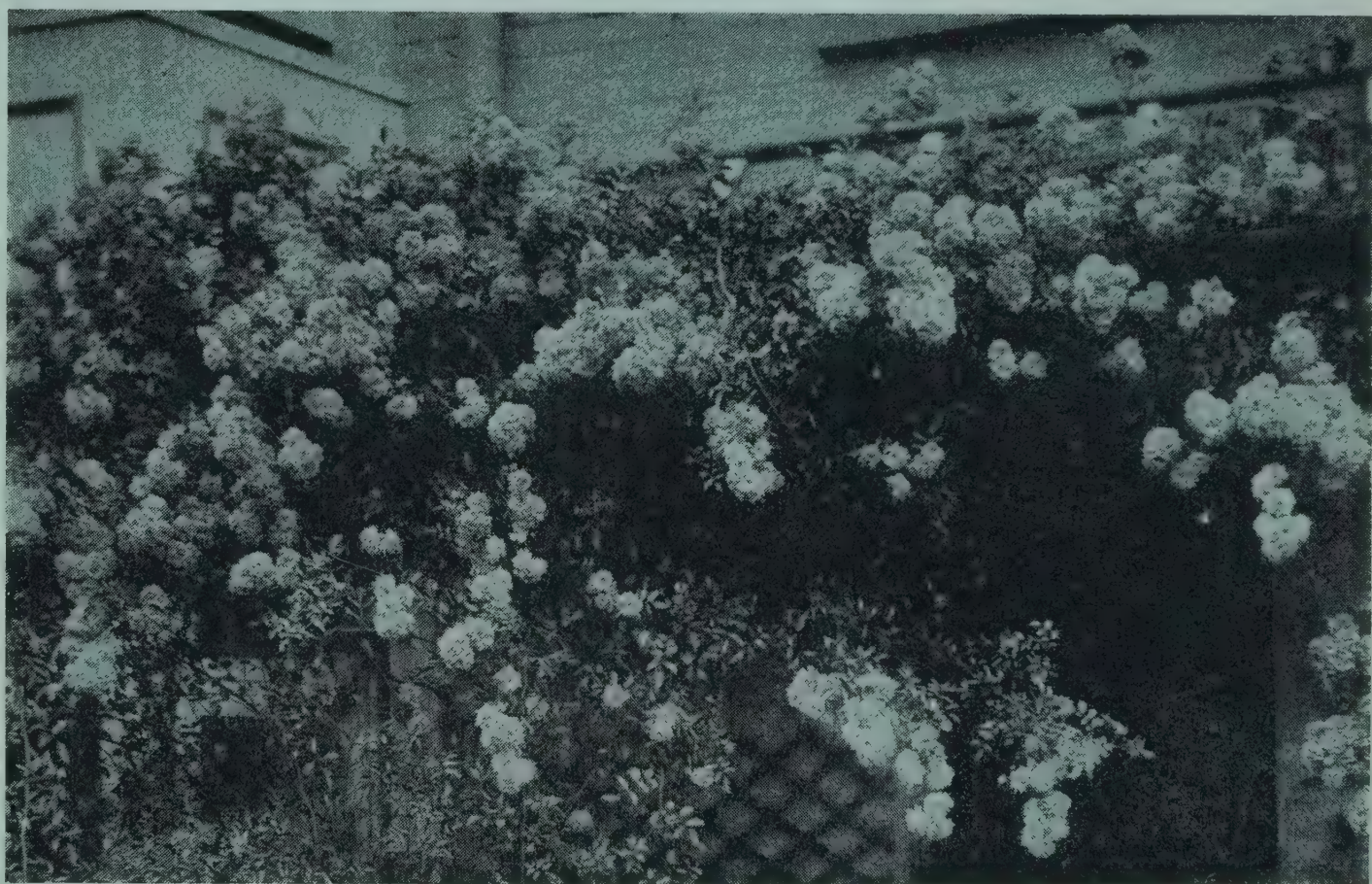
(To be continued.)

COLOURED PLATE.

PLATE 1459

ROSE SUNBURST.

THIS variety is one of the latest of a whole series of beautiful yellow Roses which have come into com-



ROSE DOROTHY PERKINS OVER A VERANDAH AT SHANKLIN, ISLE OF WIGHT. NOW IS THE TIME TO PLANT.

Mrs. Cornwallis West (Alex. Dickson, 1911).—Here is a Rose after the exhibitor's heart; a very delicate blush ivory white in colour, just sufficient colour in it to remove it from a pure white, but that is all. I see it described in some catalogues as "beautiful pink," but that is not correct. It is equally distinct in shape, getting away from the pointed petal. We have here a round Rose of the type of Her Majesty, only better. Globular, perhaps, is the correct term. Its growth, however, has nothing in common with Her Majesty; but, though vigorous, is as branching as any Hybrid Tea, with foliage that contrasts well with the flowers, which are produced singly on every shoot. It was the gold medal Rose of the Salisbury Show, and there were the unusual number of four. It has been splendidly exhibited by the raisers throughout the season. Commencing at Southampton, a box of twelve in a strong class of twenty-one entries for any white or pink won first prize, beating Bessie Browns, Mildred Grants, Dean Holes, William Sheans, a very fine box of Mrs.

merce recently. Until a few years ago good yellow Hybrid Teas were not in existence, but during the last decade hybridists have produced them in abundance. In Sunburst we have an excellent Rose, as it has perfume, lovely form, long lasting qualities, and above all, from a commercial point of view, excellent habit. A curious point about this Rose is that the second crop of blooms, as well as those produced from lateral shoots, come of a rich cadmium yellow, passing to yellow orange in the centre and without the white shading. It is very free-flowering and perpetual, and has already created quite a sensation in the commercial growing centres of America. Under glass it is a wonderful success as an autumn Rose, and I was recently informed by a commercial florist, who has some thousands in pots and planted out, that the demands, both of the home market and Paris, far exceeded the supply. Out of doors I should term it a glorified Mrs. Aaron Ward. The flowers for the coloured plate were supplied by Messrs. Stuart Low and Co. of Bush Hill Park.

DANECROFT.

ROCK AND WATER GARDEN.

ROCK GARDENS IN THE MAKING.

(Continued from page 577.)

Rock-building.—Having considered the various types of rock, suitable and unsuitable, the operator has now to make his choice and to proceed to the more serious constructive work. It is in this connection that the chief blunders are made. Writers on the subject of rock gardening repeatedly urge the teachings of Nature without giving the least idea of the good and the bad so far as our own gardens are concerned. In Nature, of course, everything is right, though it does not follow that all her object-lessons would be alike suitable for our purpose. For example, we see in Nature great unquarried masses of rock that would be wholly unsuited to vegetable-life—have, indeed, been exposed for generations without attracting vegetation to themselves; hence, so far as present purposes are concerned, the obvious lesson is of a negative character—the what *not* to do in the case.

Too Much Rock and too much exposed are some among the chief of the glaring errors of rock garden construction to-day. They are common in the exhibition arena, and fast becoming so in gardens. That is to say, while the more grotesque errors of the so-called rock gardens of the past are being rapidly discouraged, there is still the danger of not a few rock gardens becoming all rock or a near approach thereto. This could never happen did the operator keep well in mind this fact—that the primary objects of a rock garden are that it be endowed with vegetable-life, that it be both an ornament and a thing of utility as well. Hence we must of necessity avoid the continuous wall-like structure or arrangement—the unyoked savagery of Nature—as unfitted to our purpose. Far too many artificial rock gardens err on the side of pretentiousness; they are too massive, too continuous, and, worst of all, are in this form forced under one's very nose—in other words, they are brought too near to the observer.

The Best Teachings of Nature in such matters—best because embracing a graceful contour with utility—are the teachings of our own hillsides. Here, in touch with the rolling bank—sculptured and fashioned by a thousand years—we see all that is good: the occasional boulder, the projecting ledge, the outcrop rock, nearly hidden from view it may be by the constantly moving *débris*, yet invariably disconnected, and ever suggestive of its possibilities for those who have eyes to see. It will be seen, too, that these rocks also invariably “lie to the bank,” arresting, as it were, the downward progress of seed and soil, and, while playing the part of receivers and retainers of moisture, also by their lie directing it at once to the roots of the plant. Hence their teaching value is enormous.

To fully comprehend all such teaching conveys is to grasp the first great fundamental principle of rock-building; to ignore it would be but to hopelessly flounder in the dark, and always with “rocks ahead.” In the end the best results are secured to our gardens by modifications of Nature's own, adapting them always to circumstance and environment. On the other hand, a mere slavish imitation of the unquarried rock masses would be wrong from every gardening point of view, and more particularly from the utilitarian standpoint. Such arrangements, however, are a thousandfold worse when the rocks are made to recede with step-like regularity and precision till a certain pinnacled summit crowns the whole and demonstrates both its crudity and inutility.



THE GRASS OF PARNASSUS. A BEAUTIFUL BOG PLANT, NATIVE OF BRITAIN.

The Disposition of the Rocks is, naturally, a matter of importance, though in the space at my disposal it cannot be here discussed in detail. Moreover, such things will of necessity have to bear some degree of proportion to the whole. For example, a rock and water garden of an acre or so growing out of a natural dell or declivity in the land would lend itself to a type of treatment impossible in the case of an elevated one-sided bank. In the former the rocks might with advantage crop out here and there in groups on the higher portions of the quite necessary grassed banks, and, intelligently treated with shrubs—Yucca, Berberis, Cotoneaster—would be in perfect harmony

with the whole. On the other hand, a similar arrangement in a rock garden of the banked style would be incongruous, and as such to be avoided. At the International Show at Chelsea in May last one of the most effective and pleasing of the many rock gardens was also one of the simplest. The stones or rocks employed were quite on the small size, and no attempt was made to make them appear what they were not. The rocks, comparatively, were few, and, being weathered and grey, were not glaring to the sight. They were buried, too, and, as in Nature, largely hidden from view, and their setting was such that the whole might have been taken from some hillside *en bloc*. It might have been there always, so restful and pleasing was it. In short, the whole secret of its success

lay in the disposition of the rocks themselves. In the case of larger boulders being employed, more building would be necessary; but even so there would be no occasion to lose sight of the principle involved. In the disposal of the rocks, one cannot refrain from touching upon some of

The Great Errors noticed from time to time. Elsewhere in this chapter I have directed attention to the lie of the rocks in Nature and commented on the value to the plant of this natural dip *into* the bank. Frequently, however, the exact opposite is seen, and where the rocks are of any size, the absurdity and futility of the setting are at once apparent. Stones or rocks having an inclination down the bank only rarely become garnished by moss, and the lesson is an obvious one. Such rocks generally are impossibles; that is to say, they collect neither *débris* nor soil, the moisture of dew and rain is immediately carried away, and, save for the covering of some long, trailing subject, would ever remain unfurnished. Obviously, then, they are wrong. Equally wrong, too, is the naturally-disposed rock whose toes persist in exposing themselves to view, thereby creating a vacuum which should not exist. In Nature not only is the base of the rock obscured from view, but the crumbling rock and *débris* are so banked up and associated therewith as to constitute it an ideal place for colonising the choicest of plants, which the informal outline will

render into the happiest of groups. Here, indeed, the operator may copy Nature to the full, and in so doing will never err. E. H. JENKINS.

(To be continued.)

THE GRASS OF PARNASSUS.

(PARNASSIA PALUSTRIS.)

The Grass of Parnassus belongs to a small family of bog plants which have their head-quarters in the Himalayas. In this region there are some eight species to be found, including the largest member of the whole genus, *P. nubicola*. This species has been grown in gardens from time to

time, but is not a common plant. It is found at elevations ranging from 6,000 feet to 12,000 feet, and grows to a height of nearly two feet, with greenish white flowers. Several species are found in America, of which three are sometimes met with in cultivation. *P. asarifolia*, with Asarum-like leaves and greenish white flowers, is a distinct little plant. *P. caroliniana* is one of the best, growing 18 inches high, with large leaves and beautiful white flowers veined with green, sometimes $1\frac{1}{2}$ inches in diameter. *P. fimbriata*, of similar habit and stature, has white flowers, with a fringe of white hairs at the base of each petal. Our native Grass of Parnassus (*P. palustris*), a group of which is shown in the illustration on page 590, is a charming little bog plant which is well worthy of cultivation. In its natural habitats it has a very wide distribution, being spread over the temperate regions of the northern hemisphere. Throughout Northern Europe and Russian Asia it is found in bogs and moist heaths, but further South from the Alps to the Himalayas it becomes a mountain plant. It is a very easy plant to grow in boggy soil, and fresh seed germinates freely; but it is more at home in the more northern parts of this country. The stems are from 6 inches to 1 foot high, with a single sessile leaf below the middle, and bear a single white flower veined with green lines.

W. I.

THE GREENHOUSE.

THE WINTER TREATMENT OF GREENHOUSE FERNS.

BY far the most commonly grown of the extensive Maidenhair family is *Adiantum cuneatum*, for not only is it a general favourite for pot culture, both as good-sized specimens and as tiny plants in $2\frac{1}{2}$ -inch pots, but its delicately-divided fronds are largely employed for associating with the choicer kinds of cut flowers. It is usually referred to as a greenhouse kind (a most elastic term); but, as will naturally be expected of a native of Brazil, it requires a temperature above that of a structure from which frost is just excluded. Complaints are by no means infrequent of the fronds turning brown, especially during the winter months, and this is in most cases caused by the lowness of the temperature, which brings with it an excess of atmospheric moisture.

In order to keep this species of Maidenhair in good condition throughout the winter months, it will be, of course, essential to have good, well-rooted plants, furnished with firm, healthy fronds. To ensure this, overpotting must be avoided, and the amount of shading must not be carried to excess. Of course, shading is very essential during the summer months, but in autumn less is required, and for Ferns of this class, unless exceptional conditions prevail, no shading will be required from the end of September to the end of February. For the winter a light, buoyant, rather than a stagnant, atmosphere is to be preferred, and the temperature should range from 45° to 50° by night, rising from 50° to 60° by day; indeed, just such conditions as are essential to the production of greenhouse flowers at that season.

Throughout the winter the water supply must be carefully attended to; that is to say, the plants must never be allowed to suffer from want of water, but at the same time they should not be kept too wet. The browning of the fronds at this season

and the cause thereof have been alluded to, but insects and other pests sometimes give trouble. Slugs are well known as enemies of the Maidenhair Fern, and these are best sought for in the evening by artificial light, as they are difficult to detect in the daytime. It is not the large slug alone, that leaves such a conspicuous trail, which is to be feared; but tiny, dark-coloured ones that can hide almost anywhere are very destructive to Maidenheads, and so are some very little snails, which often do a good deal of damage before their presence is detected. Cockroaches, woodlice and crickets are sometimes answerable for a good deal of damage, while to the uninitiated the ravages of a small, dark-coloured weevil often prove very puzzling, as the insects pursue their work of destruction by night, and directly a light appears they drop to the ground, where their dark colour renders them difficult of detection. By spreading a white sheet underneath the Ferns, these weevils may then be readily seen when they drop.

of 40° or thereabouts, rising 10° or so during the day, is maintained, there are many Ferns that may be grown. In such a structure Pelargoniums and other bedding plants can be safely wintered.

Prominent among Ferns that will do well under these cooler conditions may be mentioned *Adiantum æthiopicum*, *A. Capillus-veneris*, *A. decorum*, *A. formosum*, *Asplenium bulbiferum*, *A. Colensoi*, *A. biforme*, *Cyrtomium falcatum* and varieties, *Davallia canariensis*, *D. Mariesii*, *D. bullata*, *Dicksonia antarctica*, *Doodia aspera*, several *Lastreas*, *Lygodium japonicum*, *Microlepia hirta*, *Nephrodium molle* and its varieties, *Onychium japonicum*, *Osmunda palustris*, *Todea africana*, *Woodwardia orientalis*, *W. radicans*, and a great number of different forms of *Pteris*, especially the many garden forms of *P. cretica* and *P. serrulata*.

For a greenhouse without any artificial heat, perfectly hardy Ferns are the only kinds that can be grown and depended upon to give satisfaction. As so many hardy Ferns are deciduous, they may



A REMARKABLE ORCHID WITH MOTILE ORGANS (*CATASETUM SPLENDENS IMPERIALE*).

This Maidenhair, and, in fact, most of the others, push up a large number of new fronds about February, and as at that time a great many of the old ones are shabby, it is a very good plan to cut off all the old fronds just as the young ones make their appearance, and thus allow for their unchecked development. These young and succulent fronds are frequently affected by green fly, which may be destroyed by gently vaporising with the XL All Vaporiser. If repotting is needed, it should be done when the young fronds are about an inch in height. The foregoing remarks will apply to the great majority of greenhouse Ferns, of which some of the stronger-growing forms will, if the pots are well furnished with roots, require more water than the Maidenheads.

The different crested and mossy forms of *Nephrolepis*, which have within the last few years become so popular, will succeed under the same conditions as advised for Maidenhair Ferns, while they will also thrive in a somewhat warmer structure. For a greenhouse where a winter night temperature

for protective purposes be set closer together during the winter.

H. P.

AN INTERESTING ORCHID.

THE Orchid family provides us with many remarkable plants, and of them the *Catasetums* are among the most singular. These plants are certainly more curious than beautiful. As a rule the flowers are of a greenish hue, with thickened, almost leathery segments. The flowers are most interesting, and provided much food for thought to the great naturalist Darwin, who made a special study of the fertilisation of Orchids. The chief interest in the flowers lies in the manner by which the pollen masses are ejected. A close inspection of the flowers illustrated will reveal the presence of two whitish horns seated within the perianth. When the flower is fully developed, these horns act as triggers, and, when touched, the pollen masses concealed within are ejected with considerable force. An insect visiting the flower is naturally startled by its welcome, and flies off with the pollen

masses adhering to it. Presumably the astonished insect does not profit by its experience, and later on pays a visit to a female flower, thereby bringing about cross-fertilisation. It was at one time thought that male and female flowers were produced only on different plants, and so dissimilar are the flowers in some instances that plants of the same species have even been placed in different genera. In recent years, however, it has been proved with plants under cultivation that a plant producing male flowers may on another occasion produce female flowers. The plant illustrated is a fine variety, with an almost black interior to the flowers, known as *Catasetum splendens Imperiale*.

"GARDENS FOR SMALL COUNTRY HOUSES."

THIS beautiful and comprehensive work brings home to one very forcibly the extraordinary

that the house and garden should be part of the same scheme, and in consequence the designing of the garden has become very often the work of the architect. The present work can, of course, only give examples of a very few of the army of men who are doing splendid work all over the country, and it speaks well for the enthusiastic spirit of the profession that its members have so widely and successfully taken up this revived branch of their art. It is to such men, great architects as Philip Webb and Norman Shaw, that we must be grateful for this, and, in remembering them, associate Miss Jekyll's collaborator, Mr. Lawrence Weaver, to whom so much is owed for the magnificent work he has done, by criticism and explanation, in *Country Life* and elsewhere.

In the volume under review we have 308 illustrations, all of interest and of a standard we have learned to expect from this source. I mention these first as one is led to turn from page to page

material equally foreign, the difficulty being rather that of discerning that which truly belongs to the immediate neighbourhood.

There are twenty-one chapters, each dealing with a definite phase of garden design, and running through all is the note of that care and consideration which must be employed by those wishful of making their garden a place of peace and beauty. This end can never be reached by the indiscriminate choice of a series of features, no matter how beautiful they may be individually, if they do not form a part of one general scheme.

To quote one of the many things to be read and taken to heart: "When the site is a bare field, or any place without individuality, the designer has a free hand, but will be wise in choosing something that will be definite, so as to give that precious quality of character. It can only be created by simplicity of aim; by doing one thing at a time as well and distinctly as possible and so avoiding complexity and confusion."

The "free hand" with no lead given to it by natural difficulties to surmount is probably the most difficult of all problems to solve; it will, however, be surprising to the layman without previous experience how many possibilities and variations of levels will be discovered in an apparently flat, uninteresting piece of ground after it has been carefully surveyed and drawn out, the first essential step to the planning of a garden. Many gardeners are needlessly afraid of attempting to make a plan. Where a survey of the particular piece of ground is not obtainable from any other source, it can nearly always be traced out upon the 25-inch ordnance map, and the subsequent planning out to scale of the simple scheme correctly enough for ordinary small garden work is largely a matter of common-sense. The gift of visualising a scheme without the aid of a diagram to keep thoughts and ideas coherent is a very rare one. The many excellent plans and diagrams given in this book are so clearly submitted to the reader that they will do much to teach the necessary part of the work. The instructions given for the building of dry walling leave nothing to be desired. In dry brick walling stability is difficulty to attain, and I have found it well to build the bottom and top three or four courses in mortar. This adds very considerably to the strength of the wall without noticeably differing from the rest if the joints are well raked out. Where a "battering" retaining wall of any considerable height is to be built, it adds to the effect and convenience to break the slope halfway up with a narrow pathway, say, 14 inches to 18 inches wide, reached by steps at intervals of the same width. The one I have in mind was originally built as a Strawberry-bed, "headers" being left out every third course about 18 inches apart—flowers now take the place of the Strawberry plants and the effect is delightful. I was left puzzled by the dictum on page 249: "In every case the rock garden should be as far as possible from the dwelling-house," remembering with pleasure, as I do, more than one entirely satisfactory rock garden in the closest proximity to the house overlooked directly from sitting-room windows. But this and a depreciating reference to "random walling," with which I do not agree, are small matters.

The book is one of those rare and happy works which will be a valuable text-book and reference on all questions of garden design, both for professionals and amateurs, and a joy to anyone who wishes to spend a quiet hour in a garden atmosphere.

MAXWELL AYRTON.



IN A GARDEN AT FOUR OAKS.

vigour of the modern movement in garden design, of which one of its authors must surely be looked upon as the pioneer. How short a time it seems since that delightful book, "Wood and Garden," appeared, followed by others equally refreshing and full of interest. To that series of works may be ascribed very largely the awakened love of garden design which makes the book we have before us possible.

The small garden is a thing which has practically only come into life during the last fifteen years, and is now so general as to have found a hold even in that stony ground mind of the "speculative builder." The serpent path and kidney-shaped "bedded-out" horror are things of the past—while the man or his wife who leave their garden to the whims of the hired man dare not confess it. It is acknowledged once more

with pure enjoyment before one can settle down quietly to read. Gardening, like domestic architecture, is suffering at the present time from a contagious disease, which takes the form of a persistent striving after "features," all of which must be antique, quaint and picturesque. Nothing is left alone; at every point and corner are details put together without rhyme or reason, regardless of locality and frequently of construction. And it is with this in view that much excellent advice should be sought in "Gardens for Small Country Houses"—and it is hoped will be taken. There is a great temptation to the unwary on looking through these fascinating pictures to take one bit here and one there and use them irrespective of the whole. Modern facility of transit is responsible for much that is wrong—it is no longer a matter of great difficulty or expense to obtain stone in a brick country or any other

GARDENING FOR BEGINNERS.

FRUIT TREES IN TOWN GARDENS.

IN this article my plea is not for Roses, although I grow them, but for a branch of gardening which the town man with a garden seems somewhat reluctant to take up. He can grow Roses, Sweet Peas, Carnations and many other beauties of the floral world up to exhibition standard, perhaps; but if he were told that certain varieties of Apples and Pears could also be grown, and that these might reasonably be expected to far exceed in size and quality the fruits usually seen on old trees in country orchards, he would probably doubt it. Yet such is the fact. All my trees are grown in a town garden, which is nearly a mile from the nearest open country, and receives its full share of the usual smoky atmosphere of a large town. The Apple trees are grown as bushes on the Paradise stock, and the Pear is also a bush on the Quince.

Eight years' experience has shown me that the trees, in order to grow and bear well, must be given as much space to themselves as possible (at least 10 feet to 12 feet between them). If this is not done, they fall an easy prey to insect pests, and become "drawn" in the struggle for existence in much the same way as a box of seedlings which has been sown too thickly.

Manuring, though desirable, does not seem to be of such importance in a town as keeping the soil sweet and in good condition. Insect pests are quite easily kept at bay with a good syringe and with no more costly insecticide than clear water. This may seem a rather bold assertion; but I have frequently found, to my very great satisfaction, that American blight and other insects which live in colonies gain no foothold among the trees when a good syringing of the leaves and stems was given once or twice a week and using water only.

I have also found that it is a mistake to grow other things in the space occupied by the trees.

One of the easiest ways of keeping the soil open to atmospheric influences is by hoeing, and this cannot be done effectively if the ground is occupied by other plants.

Worcester Pearmain is a most reliable Apple to plant anywhere. It seems as natural to look for Apples on a bush of this variety as it is to look for berries in the hedgerows in autumn. Lane's Prince Albert is also a sure cropper, and, given only the coolest room available in an ordinary dwelling-house, the fruits will keep well till spring. The ideal conditions for Ribston Pippin were provided by the exceptional heat and sunshine of last year. The crop this year, consequently, was much larger than might have been expected. Stirling Castle is a variety which flowers abundantly,

and usually sets a very large number of fruits. The growth of the tree, indeed, will be retarded unless thinning is resorted to. Irish Peach and Newton Wonder also do well with me. Both Pears and Apples this year flowered very much earlier than usual in this district, but the former suffered somewhat from the frosts of mid-April.

8, Ash Grove, Hull.

W. H. BOLTON.

A USEFUL RACE OF DECORATIVE CHRYSANTHEMUMS.

THERE is no better type of Chrysanthemum for the amateur to cultivate than the decorative. Dwarf,

but there are more recent acquisitions that have originated as sports from it. Notably there is White Caprice, or White Cap as it is better known both in gardens and in the market. A fine bushy specimen, as broad as it is long, is illustrated on this page. Here a dwarf plant is depicted at its best, and provides a good idea of what the amateur should aim at in cultivating this useful race of the Chrysanthemum. There is a more recent variety, known as Yellow Cap or Golden Cap, of precisely similar habit, and one which flowers with equal freedom, producing a mass of rich golden colour. The last-named variety was introduced a year ago, having occurred simultaneously as a sport both with Messrs. Wells and Co. at Merstham and with Messrs. James Veitch and Sons in their Feltham nurseries. Chrysanthemum sports, it should be added, have a peculiar way of occurring in different places in the same season.



A WELL-GROWN SPECIMEN PLANT OF CHRYSANTHEMUM WHITE CAP.

IS SAWDUST INJURIOUS IN HORTICULTURE?

THERE seems to be a widespread prejudice against sawdust or, at any rate, contempt for it when used as a manure. American gardeners are like English ones in this respect, it seems, and so three years ago they started experiments to try to justify their point of view. These have been continued for three years on a large scale on greenhouse plants chosen for the purpose. Perhaps this was because they are more delicate than outdoor plants, or because conditions could be better controlled. Anyhow, the results were somewhat extraordinary, and do away with any ground for suspicion, it would seem, against this cleanly material. It cannot be denied, however, that sawdust is nearly useless as a source of plant food, and therefore it is matter for surprise that when an average was struck for the three years, sawdust actually came out top and gave slightly more blooms than the other litter which was tested against it. This was straw or

bushy plants make a magnificent show in the greenhouse or conservatory at this time of year, and they may be cultivated by the veriest tyro. Such plants require occasional stopping in the growing season until the end of July to induce uniform and well-balanced growth. Disbudding is likewise necessary before the flower-buds show colour, while throughout the cultivation, from the time of the first potting until the flowering, each plant needs plenty of room from its neighbour in order to make the dwarf, bushy growth that is so very desirable. Of the varieties suitable for the formation of dwarf flowering plants, it is questionable if any are better qualified than either the time-honoured Caprice du Printemps or any one of its many varieties. This is one of the oldest varieties in cultivation,

chopped Maize stalks, superior stuff as regards plant food, surely, to sawdust. Cow-manure was chosen in each case, and was used by itself as a further source of comparison without any litter at all. Roses, Chrysanthemums, Sweet Peas and Carnations, manure-loving plants, were the ones chosen, and we learn that no harmful effect at all could be traced to the use of sawdust. This is curious. Can it be due to the slightly antiseptic properties of sawdust, which kept injurious bacteria at bay? Pyroligneous acid may be of use in this way. It could not have contributed even to the humus of the ground in the same way as the other litter, for it did not decay before use, and possibly it was this comparative absence of fermentation that effected the results mentioned.

T.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Chrysanthemums.—In common with other hardy flowers, these may now be cut down almost level with the ground. The stools will go through the winter unharmed; but if it is desired to propagate from them, I prefer to lift the stools and place them under a light in a cold frame in soil. Spring cuttings as they form may be easily removed and placed in pots or boxes to strike.

Oriental Poppies.—These are charming plants for the herbaceous borders, and are particularly suitable for shallow soils and otherwise dry borders. Planting may be done at once.

Christmas Roses (*Helleborus niger*).—The plants will soon be throwing up their blooms, and if these are wanted in advance of those out of doors, a few clumps may be lifted and placed in quite a cool house and the roots covered with soil, or hand-lights may be placed over the clumps, which will prevent the blooms from getting splashed with the rain and dirt.

The Rock Garden.

Planting Shrubs.—Any alterations or additions to the shrub-life of the rock garden may now be successfully undertaken when the weather is open. Shrubs play an important part in furnishing and providing backgrounds and shelter for some of the less hardy plants that find a home there. These are apt to become too large, however, and, if possible, only include those of slow growth and generally of spreading, dwarfer habit.

Hardy Heaths.—The many varieties of *Calluna vulgaris* and *Ericas* form excellent subjects for providing a touch of colour at various seasons, while their evergreen foliage is at all times attractive. The ground for these should be devoid of lime and well enriched with plenty of decaying leaves or peaty growth, when they will form excellent subjects. A garden devoted to these and planted in irregularly-shaped beds is a feature where it can be carried out.

Plants Under Glass.

Violets.—The plants in frames or heated pits for providing winter blooms must be kept as cool and freely ventilated as possible, and whenever the weather is mild enough, remove the light entirely. Aerate the surface soil between the plants, and if they are well established, give them a sprinkling of Clay's Fertilizer or some other suitable plant food and water in. Watering should be carried out on a mild day before noon, and the lights well tilted so that the growth dries before night. Remove any runners from the plants.

Violets in Pots.—These are an attraction to the greenhouse, thrive well in an unheated structure, and may be utilised for room decoration. Give the plants a little manurial assistance, and see that they are kept supplied with sufficient moisture.

The Hardy Fruit Garden.

Nuts.—There are many gardens where these could be planted with advantage, and if a little attention is given them, excellent crops are produced from quite convenient-sized bushes. Both Filberts and Cobs, whichever are preferable, may be planted in variety, and where both are included, finer crops are obtained, due to better pollination, I think. Choose well-drained soil, and not too heavy for preference, a sunny bank suiting them admirably, or they may be planted in the orchard in an open position. Keep the bushes free from suckers—these, if cut out during the winter, make excellent supports for plants when tied up in different lengths and placed on one side—and avoid overcrowding of the growths. Some people, when the female flowers are open, place or shake over them the catkins of the common Hazel.

Raspberries.—The quarters of this crop may be cleaned over now and any superfluous suckers taken up, and, if necessary, new plantations made on well-prepared ground that has been well enriched with manure. Raspberries should be planted in the most convenient manner, so that protection can easily be afforded when in fruit. This is best done either by planting in rows and training the growths in a slanting direction to wires stretched from stout posts, or by planting in clumps at intervals

and the growths tied up to a stout stake. The former has much to recommend it, and when duly thinned, equalised out and tied up, splendid crops may be obtained. Give a good mulching of decayed manure over the roots.

Fruits Under Glass.

Cleansing of Fruit-houses.—In addition to the thorough washing of fruit-houses, particularly the inside of both woodwork and glass, it is of paramount importance that the walls be well lime-washed or treated, as the case may be, so that any insect pests that may be lurking in the crevices are destroyed. The hot-water pipes will be considerably improved in appearance by a coat of black, nothing being better than lampblack and oil; this, though perhaps not quite so lustrous in appearance, does not give off offensive smells.

The Kitchen Garden.

Early Peas.—Where ways and means exist, excellent pods of Peas may be obtained in May by sowing seeds now in large pots or in cool houses in borders. Use a good loamy compost, to which add some Mushroom-bed manure and bone-meal, and see that the pots are well cleaned and drained. Nine-inch or 10-inch are the most suitable sizes, and for a start only half fill with the mixture. Sow as thick again as it is intended the plants shall remain, and place in a cold frame to germinate. Coddling must never be permitted at any time, but give plenty of air, and when germinated thin out to five or six plants and place a neat stick to each.

Spinach.—This crop is looking well this year, and the latest sowings have made good progress. Keep the soil between the rows hoed with the Dutch hoe, and give a sprinkling of soot. Remove by hand any weeds between the plants. See that the seedlings do not become overcrowded, but avoid thinning too severely.

Frames containing Lettuce, Endive and Parsley should be freely aired during mild, open weather, but have plenty of protecting material handy in the event of frost.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Frame Protection.—It is probable the winter may be a severe one, and though many of the plants passing the winter are newly-rooted cuttings and hardy, long-continued frosts are not beneficial. Dry straw placed above the inmates of cold frames I find a very efficient method of protection, the glazed lights keeping the straw dry and always frost-proof, while even if a foot thick it does not wholly exclude light.

In Case of Frost.—The inexperienced are very apt to admit air to frames after removing coverings on the appearance of a change after frost. This should never be done until the signs of a permanent change are unmistakable, vicissitudes of temperature being more harmful than a very low one; nor should the coverings be removed too soon. Even in frosts of only a few days' duration it is best to let the coverings remain all the time.

Frost-bitten Plants.—Some—*Calceolaria*, for instance—may be so severely frozen as to be killed to the soil-level. The plan to pursue is to keep the plants dry till spring-like weather comes, when, if the soil is dry, as it ought to be, growth will in all probability be pushed from underneath, the soil being a fairly good protective medium. *Calceolaria amplexicaulis*, now so deservedly popular, in no case should be left in cold frames over the winter.

Tender Plants.—*Ageratums*, *Lobelias* and some others are somewhat difficult to winter safely. The proper treatment is to keep them gently moving, for if kept too cold or too wet they die. If too hot they sometimes die, and, if not, become so weak as to be of slight utility for cutting purposes in spring. *Geraniums* should be kept cool and perfectly dry, but not roasted above the hot-water pipes, as we sometimes see them.

The Shrubberies.

Leaves.—The foliage of most trees and shrubs fell much earlier than usual this year, and a month

ago we had the shrubberies roughly cleaned, also the lawns. In weather unsuitable for ground-work they should have a final cleaning for the season, preserving the dead leaves for top-dressings, manuring or leaf-soil. The opportunity may be taken to prune those shrubs needing thinning, cutting out dead wood and removing branches broken by autumn gales.

Surface-dressing.—After a time shrubs become weakened and unhealthy for want of nourishment. Material from the compost heap or decayed vegetable mould has a beneficial effect if spread 4 inches to 6 inches thick above the rooting space. Frosty weather should be taken advantage of to wheel or cart the material on to the ground.

Coloured Shoots.—The value of these in winter is very great. The Rubi afford a good example. The present year's growth alone should be left in pruning, when the effect will be considerably improved. One of the best is *Rubus phoenicolasius*, which is a rich brown, shining in sunshine, but always effective. The white-barked species are also very telling. Dogwoods, *Prunus cerasifera*, *Corchorus japonicus*, *Ribes*, *Leycesteria*, and *Deutzia* afford good material for decoration, but the shrubs which provide the shoots should not be severely thinned, else they lose their effectiveness.

The Fruit-Houses.

Vines.—Where Grapes are wanted in May and June, the vinery should now be closed down and the atmosphere kept pleasantly soft without being warm. If part of the roots are outside, means to protect them from cold and too much wet should be taken, though the advantages of having all the roots inside and under complete control are so great that early vineries would be much better arranged in the latter way.

Lady Downe's.—The very late Grapes should now be perfectly matured, and while they hang on the Vines the vineries should be kept perfectly dry and the temperature as steady as possible, ranging about 45° to 48°. Alicantes are at their best now, and are apt to depreciate in the course of a few weeks, though they keep in good condition for a long time when bottled.

Peaches.—If the foliage has not all fallen, it may be lightly switched with a Birch broom, moving it in the direction of the growth, when most of it will come off. Any left on the tips of the shoots may be taken as evidence of unripened wood, which should be removed by pruning. If the border inclines to dryness, apply water—manure-water preferably—in moderate quantities, bud-dropping being attributable to winter drying of the soil. Ventilate as much as the weather will permit.

The Plant-Houses.

Begonia Gloire de Lorraine.—Plants in full flower will do quite well in a cool house not over-ventilated. The flowers stand much longer in such a structure than in a stove, where later batches should still be kept. It is a capital house plant, and will stand seemingly unaffected for a few weeks, but it is far preferable to change plants at frequent intervals. They require frequent watering in hot apartments.

Cyclamen.—Young plants have been rather troubled with mite, which deformed some of the flowers. Repeated applications of nicotine, vaporised, are essential whenever this appears, and the centres where the buds cluster, as a further preventive, may be dusted with Tobacco powder.

Primula malacoides.—Late-sown batches now throwing flowers should be afforded just a little warmth, else they are very slow in coming on, and the foliage and flowers seem to be somewhat less sweet when in a perfectly cool structure than in one slightly warmer. Well-diluted manure-water is of much value, and an occasional pinch of sulphate of ammonia, but only a pinch, has a very gratifying effect.

Primula obconica gigantea.—This plant is now so improved as to be indispensable alike as a decorative pot plant and as a cut flower. The colours are perfect, and the flowers have the additional advantage of remaining fresh for weeks—three at least—in a cut state. The plants must be kept slowly growing all along, and be treated to manure from time to time to keep the foliage a deep green.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

TO TRANSPLANT AZALEAS AND WATER LILIES (*Ilex*).—Azaleas may be transplanted at any time between the present and the end of March, when the weather is open; but do not undertake the work when there is any sign of frost. Be careful to plant firmly, and keep the upper roots near the surface of the soil. Water Lilies may be planted during February and March. A good time is when the young leaves are showing signs of starting into growth. Plant in baskets, using loamy soil, unless the water can be let out of the pond. If that can be done, mounds of loam may be formed and the Water Lilies be planted in the ordinary way. Baskets are better than casks for the purpose.

HERBACEOUS BORDER GROUPING (*M. S. W.*).—The only really effective way of grouping in such a case is that of arranging a number of plants over a rather large area of ground, each group of about three feet across. For example, taking a group of Michaelmas Daisies or of Phloxes, you might arrange six or nine of the latter and a dozen of the former, and more or less of other plants, according to their habit of growth and root spread. In this way your 8-feet-wide border might contain, roughly, three lines of groups in the longitudinal section, irrespective of any marginal plants that might be used, the third, or front, group being somewhat smaller than the rest. All the groups should be of irregular outline and alternate one with the other. By this arrangement a maximum display is obtained with a minimum of space. Of such plants as Phloxes, Heleniums, Pyrethrums, Kniphofias, Sunflowers and Michaelmas Daisies, small plants comparatively only should be used.

PLANTING HERBACEOUS BORDER (*G. B. R.*).—A border of 8 feet wide might, for convenience sake, be roughly divided into three informal lines of groups running longitudinally the whole length of the border. To each of the groups in the two back lines a space of 3 feet each should be allotted, thus leaving a 2 feet front for smaller groups of plants. In the back lines the groups should alternate one with the other, which is not only convenient for purposes of display, but as a ground covering idea has much to commend it. In this way Sunflowers, Delphiniums, Hollyhocks, Michaelmas Daisies, perennial Peas, Heleniums and other plants of like stature would appear in the background, with Phloxes, in several distinct shades, Paeonies, Gaillardias, Campanulas, Anchusa, Flag and other Irises, dwarfier Delphiniums, Papaver, Scabiosa, Lilies of half-a-dozen sorts and the like in the second row. In the front line of groups, which, if possible, might also extend as a margin, Pyrethrums, Columbines, Aster Amellus in variety, Campanula carpatia, Heucheras, Primulas, Statice, Rudbeckia, Stokesia, Pentstemons, Lychnis Viscaria fl.-pl., Geums and much besides could be utilised, the immediate front being confined to Aubrietias, alpine Phloxes, Mossy and other Saxifrages, Pinks, Hepaticas, Adonis and dwarfier Harebells, Campanulas pusilla, p. Miss Willmott, pulla, pulloides G. F. Wilson and so forth. In planting, three or five examples—in some instances less—would constitute a group, save for the front, where a carpeting arrangement would be best. To secure a good effective display, such a border should be arranged from a working plan so as to avoid clashing.

THE GREENHOUSE.

VENTILATING A GREENHOUSE (*M. H. L.*).—You ask whether the ventilators of the cool greenhouse should be opened indiscriminately in all weathers? Our answer is that it depends upon the season of the year; but during the summer months a certain amount of air should always be left on. The Geranium and Heliotrope, which do badly, both do well out of doors during the summer; hence it is evident that their weakened state and poor condition is caused by an insufficient amount of air and light. If you attempt to grow them under the shade of the Vine, a good deal of the trouble may be accounted for in this way. Much of the non-success in plant-growing indoors is caused by coddling them too much, perhaps allowing the house to become too hot and dry, and then giving a lot of air all at once so that the plants get a decided

ABOUT CHRYSANTHEMUM BUDS (*G. D. R.*).—In a dull, cold summer, such as we have experienced this year, many varieties of Chrysanthemums, when treated for the production of second-crown buds, will bear terminals. The very hot period earlier in the season prematurely ripened the wood of many varieties, and these persistently showed flower-buds in the summer-time. You may treat the plants in a similar way for several years, and if the seasons are normal the proper buds will form. We presume you pinched (stopped) the shoots to produce the second crowns. If not, there would naturally be the three breaks, the break, the first crown, and then the terminal with the surrounding buds.

ROSE GARDEN.

WICHURAIANA ROSES TO PLANT (*H. E.*).—Both Leontine Gervaise and René André are thoroughly good in every way, but they resemble each other rather much. If you desire two quite distinct, we would recommend Alberic Barbier and Leontine Gervaise. The rugosas Conrad F. Meyer and Rose à parfum de l'Hay are both very good.

WICHURAIANA ROSES FOR TOWN CULTURE (*H. E.*).—There is hardly enough distinction between Delight and Hiawatha. We should advise you to have Excelsa, and of your other list select Leontine Gervaise, Gardenia instead of Shower of Gold, and Elise Robichon. These are very lovely and all distinct, and would stand a rather bad atmosphere the best.

PREPARING BEDS FOR ROSES (*F. D. J.*).—We advise you to have the proposed beds dug out to a depth of 3 feet. Put on one side the top soil if it is of a loamy nature, and keep that which is very gravelly by itself. The beds should then be refilled with some good top soil, either taken from another part of the garden, preferably where it has been enriched with manure for vegetables, or imported from some dealer in loam in your neighbourhood. As the new soil is put into the beds, mix with it that removed from the surface, and also some well-rotted manure at the rate of one part of manure to two parts of soil. You should also add to the soil, about two feet down, a dressing of basic slag at the rate of 6oz. per square yard, and just fork this into the soil. Fill the bed about one foot higher than the ground-level, in order to enable it to settle down to its correct level. You can plant the Roses after the beds have been prepared two or three weeks, choosing a fine day for the work, and as you plant each Rose bush or standard, scatter a handful of bone-flour around the plant and just beneath the surface soil. Sweet Peas will also thrive well in soil thus prepared. Sometimes soil, "top-spit" it is called, may be purchased from builders where new houses are being erected. That from a meadow would be ideal material, and if you have the turf, put this grass downwards into the beds.

KITCHEN GARDEN.

INJURY TO CABBAGES (*Enquirer*).—The plants are attacked and destroyed by Cabbage-root maggots. Try nitrate of soda and Vaporite or some other soil fumigant; but the pest often disappears without any apparent reason.

CELERY LEAVES DISEASED (*E. G. and Others*).—The Celery is attacked by the fungus *Septoria petroselinii* Apil. Diseased foliage should be removed and the healthy parts sprayed with Bordeaux mixture or potassium sulphide. None of the refuse from the Celery should be put on the rubbish-heap, but it should be burned. Next season grow the plants as far as possible from the part where they are now growing. It is a disease which is liable to spread exceedingly quickly.

MISCELLANEOUS.

VARIOUS QUESTIONS (*Mawby*).—1. The maiden loam is best stacked in the open while it is weathering. It would be apt to become too dry in a shed. After it is fit for use it may be kept for a time under shelter, so that it may be in a friable condition when wanted. 2. Both paraffin and lubricating oil would be likely to interfere with the proper decay of the refuse, such as goes on in a heap and is necessary before plants can make any use of the stuffs locked up in them. It is, therefore, very undesirable for these to find their way into the refuse heap.

NAMES OF PLANTS.—*Dolphin*.—Linaria repens. There are many species of Linaria, and L. repens itself varies to a certain extent. *J. J.*—Tolmia Menziesii. *F. J., Gloucestershire*.—Yes; Kniphofia aloides. *Iris*.—Kniphofia Uvaria grandiflora and K. Saundersi are both good and reliable. Flowering season July till September. *Coningsby Hall*.—Juglans nigra (Black Walnut).

NAMES OF FRUIT.—*J. K.*—1, Doyenné du Comice; 2, Marie Louise d'Uccle; Apple Hollandbury. *J. P.*—Seedling Apple, a very good cooking variety, but not superior to varieties already in existence. *H. W. C.*—1, Beurré Goubault; 2, Bishop's Thumb. *Woodgate*.—1, General Totten; 2, Josephine de Malines; 3 and 4, Hawthornden; 5, Emperor Alexander. *G. H., Berwick, Sussex*.—1, Cornish Aromatic; 2, Cox's Orange Pippin; 3, Beurré Dumont; 4, Josephine de Malines. *E. M., Richmond*.—Rosemary Russet. *G. W. E.*—1, Peasgood's Nonsuch; 2, Rambour Franc; 3, Blenheim Orange, well coloured; Pear King Edward. *J. K., Ireland*.—Apples: 1, Withington Fillbasket; 2, Flanders Pippin; 3, Gloria Mundi; 4, Ard-Cairn Russet; 5, Wellington; Pears: 1, Beurré Diel; 2, Verulam. *E. M. A.*—See next week's issue. *C. W. Kitson*.—Seps o' Wine.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

AN important meeting of the floral committee of the National Chrysanthemum Society was held at Essex Hall, Strand, London, W.C., on Monday, November 11, at three o'clock in the afternoon. There was a good attendance of members of this committee, and no fewer than forty-three new varieties of Chrysanthemums were submitted for adjudication. A high standard of quality was observed in making the awards, many really good things being passed over. The following varieties gained recognition.

FIRST-CLASS CERTIFICATES.

Enchantress.—A large and refined Japanese bloom of exhibition standard. The petals are long and of medium breadth, twisting and slightly curling, and building a bloom of drooping form. Colour, white, suffused pink at the ends. Late blooms are much better coloured.

Mrs. W. T. Smith.—This is a large, deeply-built incurved Japanese flower of beautiful form and good quality, having broad petals reflexing and incurving at the ends; white. From Mr. A. Smith, Convent Gardens, Roehampton.

Mrs. W. E. Tricker.—Another large, solidly-built incurved Japanese bloom, having fairly broad petals, neatly incurving and of deep build. Colour, deep blush.

Mrs. G. W. C. Drexel.—Although shown in varying form, this is a monster Japanese flower of great refinement. The petals are very long and of medium width, twisting and curling and incurving at the ends, and building a graceful flower of drooping form. Colour, silvery pink. From Messrs. W. Wells and Co., Limited.

Mme. Depree.—This variety was classified as an incurved Chrysanthemum, although the long, pointed petals of medium width incurve in a fashion rather like a Japanese. It is a large flower for this section, and is regarded by market-growers with much favour. Colour, creamy white, tinted blush. From Mr. H. W. Thorp, Worthing, Sussex.

Mrs. J. G. Day.—A beautiful Japanese variety of good quality. The petals are fairly broad and long, pleasingly reflexing and incurving at the tips, building a flower of drooping form. Colour, a very lovely tone of golden amber. Shown by Messrs. H. J. Jones' Nurseries, Limited, Ryecroft Nursery, Lewisham, S.E.

Juno.—One of the most remarkable of the large-flowered singles extant. The blooms are from 7 inches to 8 inches in diameter, and the long, very broad petals are disposed in most even fashion round a nicely-proportioned disc. There are about three rows of petals. Colour, deep rose, tipped white, with narrow white zone round yellow disc.

Thorp's Amaranth.—A most attractive market variety of Japanese origin. The bloom is of fairly even form, having fairly broad petals neatly reflexing. Colour, deep rosy amaranth, with silvery reverse. The flowers are about six inches in diameter. From Mr. H. W. Thorp.

Ivor Grant.—A superbly fine medium-flowered single having a double row of broad florets very evenly disposed, building an ideal bloom of its kind. Colour, rose pink, with white zone round yellow disc. From Mr. G. Mileham, Emlyn House Gardens, Leatherhead, Surrey.

Rowena.—This is a very distinct large-flowered single, having two rows of petals of medium breadth evenly disposed. Colour, chestnut crimson, with yellow zone round deeper yellow disc. From Messrs. Cragg, Harrison and Cragg, Heston, Hounslow.

Bronze Beauty.—A splendid medium to large sized single, having about three rows of petals of good breadth that build a bloom of good form. Colour, rich orange bronze, with yellow zone round disc.

Ethel Mortimer.—Another grand, large-flowered single of superb quality. The blooms are fully 4 inches in diameter, and have from three to four rows of fairly broad petals that slightly recurve in even character and build a charming exhibition or market variety. Colour, clear golden yellow. These two novelties were shown by Mr. Philip Ladds, Swanley Junction, Kent.

COMMENDED.

Cynthia.—For market uses and for bold decorative displays this new Japanese variety is noteworthy. The flowers are about six inches in diameter, the petals being rather narrow, but of good length. Colour, a lovely tone of rich crimson amaranth. It is a flower in the same category as R. F. Felton and Cranford Pink. From Mr. Walter Jinks, Thames Ditton.

Miss Mary Otter.—This is a dainty little single classified as medium to small flowered, of an attractive character, being about three inches in diameter and having three rows of rather narrow petals neatly disposed. Colour, bright yellow. From Messrs. W. Wells and Co., Limited.

READING GARDENERS' ASSOCIATION.

THE usual fortnightly meeting was held in the Abbey Hall (by permission of Messrs. Sutton and Sons) on the 4th inst. The president (Mr. F. B. Parfitt, J.P.) occupied the chair, and there was a large attendance, which included the vice-president (Mr. Leonard Sutton). The lecturer announced for the evening was a delegate from the kindred society at Bristol, but at the last moment he was unfortunately prevented from journeying to Reading. His place was admirably filled by a brother Bristolian, Mr. I. House, who is always welcomed by the Reading Association. The subject was "Hardy Perennials." In the first part of his paper Mr. House defined the term "hardy perennial herbaceous plants," and expressed regret that compilers of show schedules were not clear in their stipulations

Bulbous plants should not, in his opinion, be admissible in a class for hardy herbaceous plants, neither should any of doubtful hardiness, nor others treated as greenhouse plants, for the purposes of competitive exhibition. He instanced plants which were not easily propagated, among others commending *Ostrowskia magnifica* and giving his experience with it. Another list comprised those which were not generally successful, as *Romneya Coulteri*, supplementing it with cultural details. Mr. House also gave the names of a number of the newer and finer forms of better-known plants, as *Phloxes*, *Pyrethrums* and *Montbretias*. In another section of his paper he gave the names of plants which were undesirable occupants of the herbaceous border on account of their predatory habits. He advised his audience as to the kinds of plants which were best left undisturbed for several years, as the forms of *Aster Amellus*, *Dictamnus Fraxinella* and *Pæonies*, and enumerated others which were better for annual or biennial replanting. Mr. G. Carter, gardener to Mr. S. Griffith, Gordon Lodge, exhibited a very pretty group of *Primula Sutton's Giant Pink*, for which he was awarded a certificate for cultural skill.

SANDHURST, YATELEY AND DISTRICT GARDENERS' ASSOCIATION.

THE fourth meeting of the winter session was held in the Church Schools, Sandhurst, on November 5. Mr. F. W. Benham presided over a moderate attendance, when Mr. J. Evans, The Gardens, Snaprails, Sandhurst, gave a most interesting paper on "Roses," dealing fully with the preparation of the ground, planting and pruning. A good list of the best varieties in the various sections was given. An excellent discussion followed, in which many points of interest were raised. At the close a hearty vote of thanks was accorded Mr. Evans for his paper.

WARGRAVE GARDENERS' ASSOCIATION.

THE eleventh annual show (non-competitive) organised by this society in aid of the Royal Gardeners' Benevolent Fund was held in the Woodclyffe Hall, Wargrave, on Wednesday, November 6. It proved very successful, both as regards the quality of the exhibits and the interest taken in the show by the general public, the hall being well filled, during the evening especially. The staging arrangements were superintended by Mr. W. Bazeley, assisted by a strong committee. Instrumental and vocal music was provided during the afternoon and evening, and greatly added to the enjoyment of the visitors to the show. The exhibits were arranged on three tables running the whole length of the hall, besides which the permanent stage was also used for small groups. The ladies and gentlemen who sent exhibits were as follows, the gardeners' names being in parentheses: Sir Charles Henry, Bart., M.P. (gardener, Mr. R. Doe), Mr. A. B. Gill (Mr. Pope), Captain Coleridge (Mr. W. H. Scott), Mrs. Rhodes (Mr. T. Haskett), Mr. G. Stanton, Mrs. Groves (Mr. A. Mackenzie), Mr. E. C. Hannen (Mr. H. Atlesey), Mr. Martin J. Sutton (Mr. H. Slark), Mr. G. C. Davies (Mr. T. Tunbridge), Mr. Bazeley, Twyford Nurseries; Mr. H. C. Bond (Mr. R. Perry), Mr. R. C. Harrison (Mr. J. A. Hall), Major Bulkeley, D.S.O. (Mr. W. Massey), and the Wargrave Plant Farm, Limited (manager, Mr. H. Richardson).

LIVERPOOL HORTICULTURAL ASSOCIATION.

THIS society held its thirty-third autumn exhibition in the Corn Exchange on the 13th and 14th inst., which fully upheld the high traditions of the city which gave birth to the large exhibition Chrysanthemum. The show under review is credited as being the best autumn exhibition yet held.

Cut blooms possibly form the popular section, which were shown in quantity, and, what is generally recorded of Liverpool exhibitors, no inferior specimens were to be seen. The chief class was won by Mr. C. Goves, gardener to Sir Gilbert Greenall, Bart., Warrington, in which he secured the handsome silver challenge vase, the gift of Sir W. H. Tate, Bart. The thirty-six flowers—eighteen Japanese and eighteen incurved blooms—were greatly admired, and to make a selection we might give: Japanese, William Turner, which secured the National Chrysanthemum Society's certificate for the best Japanese in the show; F. S. Vallis, President Viger, Lady Talbot, Hon. Mrs. Lopes and A. T. Miller; incurved, Mrs. G. Denyer, G. F. Evans, Marjorie Shields, Romance, Mrs. R. H. Hall and others. This exhibitor and Mr. J. Clark, gardener to Mrs. Clarke, Allerton Hall, had many remarkable incurved blooms. The second prize-winner in the "Cup" class, Mr. G. Haigh, gardener to Sir W. H. Tate, Bart., Woolton, had many beautiful incurved blooms. His Buttercup, noted for its form, colour and size, easily secured the National Chrysanthemum Society's certificate as the best incurved in the show. This exhibitor had many fine blooms, staged in vases, which many people prefer to the more formal style of arrangement in boxes or on stands. A feature of the exhibition were the sterling exhibits of single cut Chrysanthemums set up in vases with nine blooms in each vase. This section has steadily improved, but the present exhibits easily surpassed all previous efforts. To Mr. Loo Thomson, an enthusiastic amateur of Formby, much credit is due for his superb display. The varieties that have met with such general approval are Edith Pagram, Snowflake, Crimson King and Bronze Pagram. The blooms measure from 5 inches to 6 inches in diameter, and are well adapted for a display in a large room or hall. Mr. G. Haigh and Mr. G. Eaton, gardener to W. Tod, Esq., Allerton, also staged splendid exhibits.

WEST OF ENGLAND CHRYSANTHEMUM SOCIETY.

THIS society opened its annual show in the Guildhall, Plymouth, on Tuesday, November 12. The exhibition proved to be one of the most successful and attractive that have ever been held in the town. This year the Earl of Morley has become the president of the society. The entries were more numerous than in late years, and the competition was very close. The judges often experienced considerable difficulty in arriving at their awards.

The cut blooms were well shown and very numerous. In the first class, for twenty-four Japanese blooms, the first prize was won by Lady Buller. In her stand were good examples of W. Turner, Rose Pockett, Miss L. Baker, F. S. Vallis and Lady Talbot. The same exhibitor also won first prizes for eighteen Japanese and for six Japanese.

In the class for twelve Japanese, the first prize was won by Mr. T. B. Bradshaw.

In the class for twelve vases of single Chrysanthemums, the first prize was also won by Mr. T. B. Bradshaw; but he was beaten for the silver-gilt medal by the winner of the class for single Chrysanthemums in the local class, Mrs. Bainbridge.

The first prize for a group of stove and greenhouse plants was won by Mrs. Bainbridge with a very gracefully-arranged and attractive collection of fine plants. In the centre was a tall specimen of *Arundinaria Falconeri*, and around were grouped *Calanthe Veitchii*, *Cypripedium insigne*, single Chrysanthemums, *Crotons* in variety, *Salvia leucantha*, *Panax Victoræ*, *Pandanus Veitchii*, *Dracenas*, *Eulalias*, *Dieffenbachias*, *Urceolina pendula*, *Eupatorium micranthum*, *Marguerite Boule de Neige*, *Aralia gracillimum* and *Coleus*.

For a group of single Chrysanthemums, the first prize was won by Dr. Burke with a well-arranged group of plants laden with very fresh and well-coloured blossoms.

For a collection of salads in variety, a most pleasing table was contributed by Mrs. Bainbridge, who won the first prize. With its lightness of arrangement and the bright colouring of the Tomatoes and Capsicums it certainly provided one of the prettiest pictures in the show, and it would have been fully equal to winning in London in strong competition. Included in the collection of salads were five sorts of Capsicum, large red and yellow Tomatoes, Grape Tomatoes (yellow and red), American Cress, Australian Cress, Brazilian Cress, Watercress, Mustard, Batavian Endive, Moss-cured Endive, Cos and Cabbage Lettuce, Oak-leaved Lettuce, Asparagus-leaved Lettuce, Cucumbers, long and Turnip Radishes, Chinese Cabbage, variegated Chicory, red-leaved Chicory, Witloof, Chervil, Chibbles, Chives and Tarragon.

The nurserymen's exhibits were extremely fine, and contributed very noticeably to the attractions of the show. The Devon Rosery, Torquay, which was awarded a gold medal, had a magnificent display of fruit, about one hundred and fifty varieties being shown, of which Apples accounted for nearly one hundred and twenty. The Apples were generally wonderfully well coloured and mostly very large in size. Of those more especially noteworthy some of the best were Gascoyne's Scarlet, Blenheim Orange (very deep in colour), Cox's Orange Pippin, Peasgood's Nonsuch, Newton Wonder (excellent), Bismarck, Bramley's Seedling and Emperor Alexander.

The King's Acre Nurseries, Hereford, also carried off a gold medal for a very meritorious display of fruit. The outstanding feature of this stand consisted in several enormous specimens of the little-known Apple Gloria Mundi. Among the best fruit on the stand were Lord Derby, Warner's King, King's Acre Bountiful and Mère du Ménage.

Messrs. Sutton and Sons showed a first-class collection of vegetables, for which they received a gold medal. The produce was very well arranged and remarkably clean, of splendid quality and entirely free from coarseness. Every variety shown was perfection, and could not have been excelled.

Messrs. Robert Veitch and Son, Exeter, staged a comprehensive collection of plants, and were awarded a silver medal. In the stand were noticed hybrid Nerines and Nerine Bowdenii, *Cypripedium lecanium* superbum, *C. Actæus*, *C. insigne punctatum*, *C. fairieanum*, *C. Charlesworthii*, *Odontoglossum crispum*, *O. andersoni*, *Anthurum*, *Cattleya labiata*, *Sarracenia exoniensis*, *Zygopetalum Mackayi*, the new *Berberis Wilsonæ*, *B. Bealii*, *Grevillea longifolia*, *G. ornithopoda* and a collection of winter-flowering Carnations.

MANCHESTER ROYAL HORTICULTURAL AND BOTANICAL SOCIETY.

THE autumn exhibition of this society was held in the Town Hall under the most favourable auspices. The entries, both competitive and non-competitive, were of a very high order, superior merit being the prevailing note in nearly every section.

Taking the Orchids, which were both numerous and choice, into first consideration, the season's best-known kinds were in evidence, such as *Cypripediums*, *Cattleyas*, *Vandas*, *Odontoglossums* and others, charming in diversity of colour, form and variety, and were greatly appreciated by the visitors. The gold medals that were awarded to the following firms were richly deserved: Messrs. J. Cypher, Charlesworth and Co. and W. R. Lee.

The Autumn Queen was in very high form. The exhibit of *Pantia Ralli*, Esq., in the premier class was of high excellence, and fully deserved the leading position. Among his blooms were fine types of His Majesty, *Glaucus*, *Superb*, *W. Mease*, *William Turner*, *Willie Rawlings*, *President Viger*, *Purity* and others in the Japanese section, with *Amber Beauty*, *Mrs. R. Judson*, *Bocase*, *G. F. Evans*, *Romance*, *Mrs. B. Hankey*, *Fred Palmer* and *Mrs. G.*

Denyer in the incurved section. Mr. C. Goves, gardener to Sir Gilbert Greenall, Bart.; Mr. C. Jones; Mr. W. E. Wright, gardener to Lord Sheffield; Mr. J. Stoney, gardener to Lieutenant-Colonel J. B. Gaskell; and Mr. W. J. Garner (nurseryman) also contributed many fine stands in this section.

Winter-flowering Begonias set up in large numbers by Messrs. Clibran proved one of the features of the show, with a bank of some thirty feet. The varieties were staged in groups, and perhaps the best of this set of good things were Clibran's Pink. Miss Clibran, Mrs. Heal and many others gave proof of what this firm have done by the introduction of these beautiful forms to brighten the winter months. Gold medal.

Fruit had a single representative in Messrs. Dickson, Brown and Tait, who staged a large collection of Apples and Pears of leading quality, well arranged. Gold medal.

The secretarial duties and general management of the show were in the able hands of Mr. P. Weathers, and to him and his generous council a deep debt of gratitude is due.

EDINBURGH CHRYSANTHEMUM SHOW.

THE great annual show of Chrysanthemums organised by the Scottish Horticultural Association was held in the Waverley Market, Edinburgh, on November 14, 15 and 16. As might be expected from the increasing appreciation of small blooms in Scotland and their greater value for cutting, in addition to the unsatisfactory season, there was a smaller show than usual, and in the leading class the competition was more limited than ordinary. The cut flowers were, as a whole, of excellent quality; plants were good; and the floral arrangements in the best of taste, as a rule. Fruit was capital, and vegetables were of the usual high quality exhibited at this show.

Trade exhibits added a good deal to the interest and value of the exhibition. As usual, Messrs. W. Wells, Limited, Merstham, exhibited a magnificent display of new and old Chrysanthemums, which were greatly admired. Lady Talbot and Queen Mary were especially good, and the whole exhibit was worthy of the gold medal awarded. Messrs. Wells received awards of merit for Chrysanthemums Queen Mary and Mrs. W. G. Braxall.

From Messrs. Sutton and Sons, Reading, there came one of their superb exhibits, comprising the finest varieties of vegetables, &c., upwards of sixty varieties being shown in their wonted grand style. A gold medal was awarded to the firm.

Messrs. W. Cuthbush and Sons, Highgate, London, received a silver medal for their excellent exhibit of Carnations, among which we noted King George, Mrs. Lucy Mackinnon and Hon. R. James.

The exhibit of Messrs. Young and Co., Hatherley, Cheltenham, who also received a silver medal, contained a number of the best and newest Carnations, among which we observed Hon. J. Boscawen, Duchess of Devonshire, Empire Day and many others of grand quality.

Messrs. Dobbie and Co., Edinburgh, made a fine exhibit, for which a silver medal was given. Their collection of Potatoes was one of great value and interest.

An exceedingly attractive display, though not large, was made by Mr. David W. Thomson, George Street, Edinburgh, who sent a collection of winter-flowering Begonias, which enabled growers to see some of the best of the newer varieties as grown in small pots.

Messrs. John Forbes, Hawick, Limited, set up an exhibit of good Carnations, Begonias, perennial Asters, &c.

The Professional and Civil Service Supply Association, Edinburgh, made an effective exhibit of Grapes, Apples and other fruits.

Mr. H. N. Ellison, West Bromwich, again sent one of his attractive exhibits of choice Ferns—a most interesting and pretty stand.

On the exhibit of Messrs. Tillie, Whyte and Co., Edinburgh, there were many very fine vegetables, plants, &c., showing the excellence of the firm's strains.

In the competitive sections keen interest was displayed in the exhibits for the leading prizes. That for the City of Edinburgh Cup and £12 in money was, however, shorn of much of its attraction by the fact that of the three entries only for this season but two were staged, and the disparity between these was very great. Mr. T. Lunt, gardener to Captain Stirling of Keir, the hon. president of the association, was declared the winner, and thus becomes the owner of the cup, which he has now won for three times. He had 138½ points out of a possible 180. The blooms, though very fine, were not equal to those which won the cup in 1911. Out of the fifteen varieties Mary Poulton, Mrs. Thorn and William Turner were probably the finest; but good blooms of Mrs. A. T. Miller, F. S. Vallis, White Queen, Purity, Maud Williamson and others were included in this creditable exhibit. The second prize was withheld and a third awarded to Mr. J. Fraser, gardener to Mrs. Simpson, Bonaly Tower, for a nice exhibit, though too small for such a class. Mr. Fraser had 87 points.

A much closer competition occurred in the class for the Scottish Challenge Cup for Scottish growers, and Mr. James Small had a creditable win with a good exhibit which gained 76 points, the highest possible being 96. Mr. R. Mackenzie was only 1½ points behind. Mr. H. M'Skimming, who had 72½, was third; and Mr. D. M'Lean, Raith, had 71½ in the fourth-prize exhibit. As will be gathered from the number of points, this class also was hardly up to the usual.

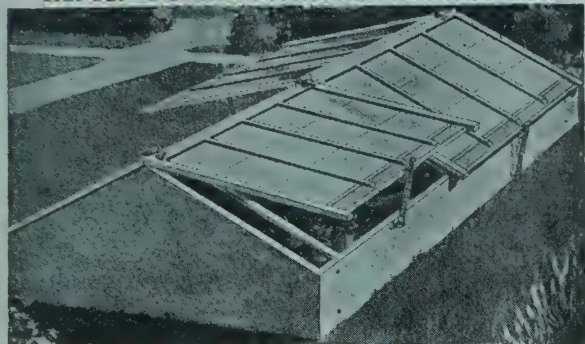
For six vases, Japanese, confined to private gardeners and amateurs, Mr. John Walde, Dollarbeg, was first.

For twelve blooms, Japanese, in twelve varieties, open to all, Mr. Lunt repeated his victory in the premier class. Mr. Small being second.

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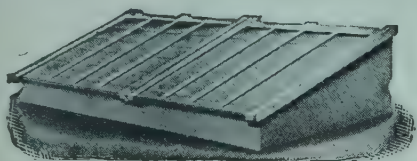
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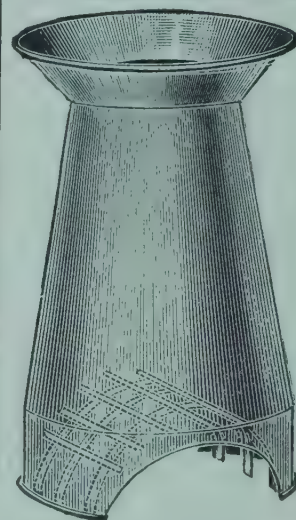
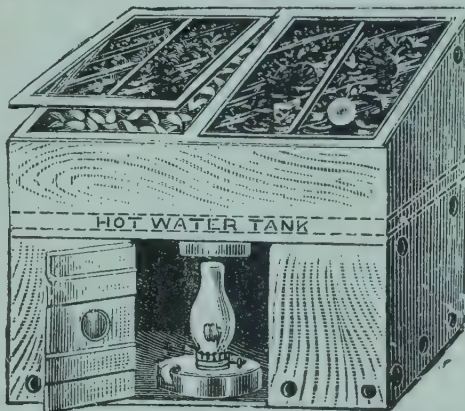
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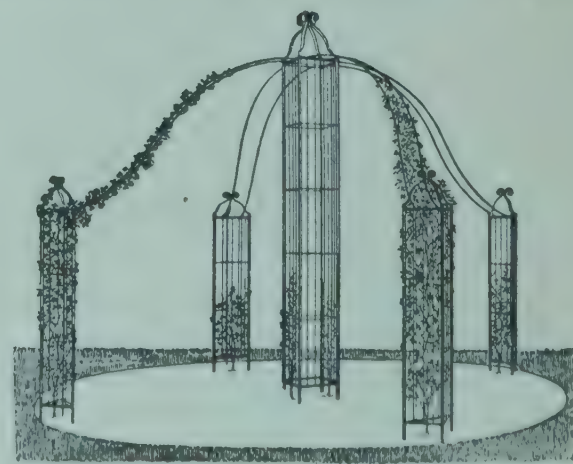
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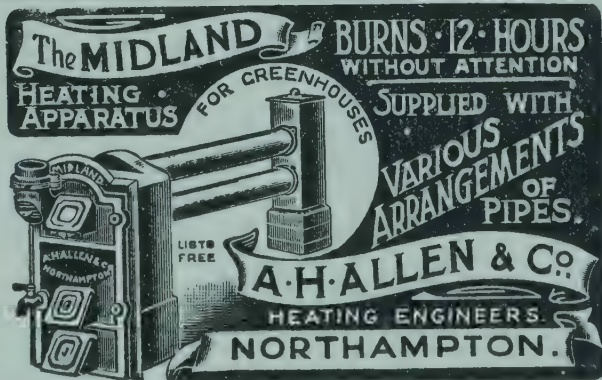
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Mr. T. Lunt led for two vases of one variety and for four vases in twelve varieties; Mr. P. McLachlan for four vases in four varieties; Mr. R. Whannell for two vases in six varieties; Mr. W. Galloway for three vases in three varieties; and Mr. D. Kidd for one vase disbudded.

Single Chrysanthemums were good, and Mr. W. Galloway was first for six vases in six varieties and for three vases. Mr. A. Knight came first in another class for three.

The best bloom in the show was shown by Mr. J. G. Thomson, Norwood, Alloa, the variety being William Turner.

Messrs. W. Wells and Co. secured the first prize for the best new Chrysanthemum not in commerce.

Mr. James Bruce had the best six vases confined to market-growers.

Amateurs generally showed well. Chrysanthemum Thomas Lunt, exhibited by Mr. J. H. Silsbury, received a first-class certificate, and, in addition to the awards of merit given to Messrs. W. Wells, an award of merit was given to Messrs. Cragg, Harrison and Cragg for Chrysanthemum Snow Queen.

Mr. A. Williams was first for winter-flowering Carnations.

Table decorations and floral arrangements were very fine, and constituted an important department of the show. The table decorations were of great merit, and Mr. D. Kidd, Carberry Tower, had much credit in his success over nine other competitors with his table charmingly decorated with Carnations May Day, Francoa ramosa and Ampelopsis. Mr. G. Scott, Seathwood, Dundee, was second, and Miss M. C. Burton, New Saughton Hall, third.

The other principal winners in the floral classes comprised Miss H. Newlands, Mr. A. Knight, Mr. James Beate, Mr. A. Horton, Mr. J. B. Hamilton and Mrs. Hamilton.

In the plant classes the leading winners with Chrysanthemums were Mr. W. Michie, who won in the principal class with large, well-flowered plants, and was equally successful in several other classes; Mr. J. Fraser and Mr. W. Aithie.

In the other plant classes we observed the fine Palms exhibited by Mr. A. McMillan, with other first prize exhibits by Mr. J. Wilson (Dracenas); Primula sinensis from Mr. D. McLean, Raith; P. obconica from the same grower; and other plants from Mr. W. Robertson, Mr. J. Alexander and others too numerous to mention in the space at our disposal.

Fruit was, as usual here, very good, and Mr. D. Kidd was first for the collection of fruit with grand examples.

In the class for four bunches of Grapes, an unfortunate mistake arose in the naming of a bunch in the first prize exhibit, that from Mr. D. Halliday, Ascog, and the prize was withheld on exception being taken. Mr. J. Waldie, Mr. W. G. Pirie, Mr. Halliday, Mr. J. Shiells and Mr. D. Kidd were among the leading winners in other Grape classes.

Mr. J. Duff, Threave, had the best collection of eighteen dishes of Scottish-grown Apples, and the same exhibitor was equally successful in the open class for eighteen varieties, thus winning over the heads of some noted English cultivators.

For Pears grown in Scotland, Mr. W. Galloway was first, and in the open class Mr. G. Mackinlay came first.

The vegetable classes were of high quality. Mr. R. Stuart, Thirlestane Castle, was first for the collection, and other winners with vegetables included Mr. G. Scott, Mr. J. W. Scarlett, Mr. S. Gordon, Mr. J. Duff, Mr. P. Melville and a number of others.

Mr. G. M. Service had the best Leeks in the market-gardeners' class.

The show was opened by Lady Elphinstone in a neat speech, and her ladyship presented the cups to the successful exhibitors. At the dinner Captain Stirling of Keir presided and replied to the toast of the association, which was proposed by Mr. A. Eddington. In his reply Captain Stirling expressed the opinion that the taste for large blooms was on the wane, and that the members should note this and give effect to the public taste in the exhibitions.

ROYAL HORTICULTURAL SOCIETY.

THE usual fortnightly exhibition of the above society was held at Vincent Square, Westminster, on Tuesday last. Winter greenhouse flowers, including Chrysanthemums, Begonias, Perpetual-flowering Carnations, Orchids, Cyclamen and Poinsettias, were shown to great advantage, and two particularly fine collections, one of fruit and one of vegetables, were deserving of the high awards bestowed upon them.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. G. Woodward, E. Beckett, J. Willard, G. Kelf, A. Grubb, A. R. Allan, W. Pope, W. Humphreys, J. Harrison, O. Thomas, G. Wythes, W. Poupart, H. S. Rivers, W. Bullock and J. Davis.

A collection of fruit, mainly comprising brilliantly-coloured Apples, was sent by the Hon. Vicary Gibbs, Aldenham House, Elstree, Herts (gardener, Mr. E. Beckett). Among the Apples shown we were particularly taken with handsome baskets of King of Tompkin's County, Worcester Pearmain, James Grieve, Adam's Pearmain, Hoary Morning, Winter Ribston, Newton Wonder, Charles Ross, Bismarck, King of the Pippins, Wellington and Gascoyne's Scarlet. Pears, Melons, Nuts and Medlars were included in this admirable collection, also some well-finished bunches of white and black Grapes, including Black Alicante, Cooper's Black, Prince of Wales and ten well-finished bunches of Muscat of Alexandria. Gold medal.

Messrs. James Veitch and Sons, Limited, Chelsea, staged a magnificent and highly-attractive collection of vegetables, including Onions Excelsior and Ailsa Craig and Potatoes Windsor Castle and The Factor. The Carrots, Parsnips, Leeks, Tomatoes, Broccoli, Savoys and Turnips were alike well represented, and bore evidence of the very highest and best cultivation. Gold medal.

A collection of Apples and Pears was sent by Mrs. W. Gordon Canning, Hartpury House, Gloucester (gardener,

Mr. H. Prentice). The fruit was nicely staged with foliage plants, and the quality of the produce was very fine. Silver Knightian medal.

Messrs. James Carter and Co., Raynes Park, staged an exhibit of Cabbages and Kales, which appeared very seasonable at this time of the year. Of the Cabbages, Miniature Drumhead and White Prizetaker were in good form, while Savoys, Kales and Red Pickling Cabbage were alike well shown. The little-known Russian Kale (Chou de Russie), with deeply divided leaves, was included in the collection. Silver Banksian medal.

A number of awards were granted to fruit preserves and jams from various sources.

A bronze Knightian medal was awarded to C. Goring, Esq., Weston Park, Steyning, Sussex, for fruit.

ORCHID COMMITTEE.

Present: Sir, Harry Veitch (chairman), and Messrs. James O'Brien, de B. Crawshaw, R. B. White, W. Bolton, A. Dye, W. P. Bound, H. G. Alexander, J. E. Shill, W. H. Hatcher, J. Cypher, J. Charlesworth, C. H. Curtis, A. McBean, C. J. Lucas, F. Sander, T. Armstrong, F. J. Hanbury, R. G. Thwaites, R. A. Rolfe and Gurney Wilson.

A remarkably fine group of the blue Vanda cœrulea, interspersed with yellow-tinted flowers of Cypripedium, was sent by the Duke of Marlborough, Blenheim Palace (gardener, Mr. G. Hunter). The Vandas were of exceptional colour, and so profusely flowered as to command the admiration of all visitors. The group was backed by tall, handsome Palms and staged in a masterly manner. A number of varieties of Vanda cœrulea, such as Mrs. Spencer Churchill, minchinianum Cooperi, Rosamunda and Hunteræ, with but slight differences between them, were included. The effect produced was wonderful and pleasing in the extreme. Gold medal.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, staged a miscellaneous group, comprising Cattleyas, Cypripediums and Oncidiums in variety. Silver Flora medal.

A choice group of novelties, mainly Cypripediums, was shown by Messrs. Charlesworth and Co., Hayward's Heath. Messrs. J. Cypher and Sons, Cheltenham, showed Cypripediums in great variety. Silver Banksian medal.

Messrs. Sander and Sons, St. Albans, had an interesting group, among which we observed Cirrhopetalum Medusæ and a capital selection of Cattleyas in season. Silver Banksian medal.

A silver Banksian medal was also granted to Messrs. James Veitch and Sons, Chelsea, for a choice group of Cypripediums and other Orchids in season.

Messrs. Swan and Price, Keyfield Nursery, St. Albans, showed a very creditable group of Cypripediums. Bronze Banksian medal.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), the Rev. F. Page-Roberts, and Messrs. J. Green, G. Reuthe, H. J. Chapman, C. R. Fielder, J. F. McLeod, J. Jennings, E. Mawley, J. Dickson, C. Dixon, H. J. Jones, C. E. Shea, C. E. Pearson, E. H. Jenkins, W. J. James, C. T. Druery, W. J. Bean, W. Bain, R. C. Reginald Neville, W. Howe, A. Turner, J. W. Barr and J. Hudson.

Messrs. James Veitch and Sons, Limited, displayed a particularly fine table of the winter-flowering Begonias, rich and telling in colour at this dull season of the year. The most beautiful, as also the most decorative, was The Gem, a sturdy plant full of bloom at about one foot high. The colour is rich carmine-scarlet, the plant a model of beauty. Winter Cheer, Julius, Ensign and Success were other important varieties of this group, valuable one and all for gaiety and high decorative excellence at a comparatively dead season of the year. Lindenbergia grandiflora (yellow) and Browallia viscosa (fine purplish blue) were among plants of interest in the group.

Mr. W. Lawrenson, The Nurseries, Yarm-on-Tees, had a superb group of a new pure white Perpetual-flowering Carnation named Snowstorm, with nearly or quite self-supporting stems, and excellent in every way.

Messrs. Whitelegg and Page, Chislehurst, showed a great variety of alpine pans, also Primulas malacoides and capitata in flower.

Messrs. H. J. Jones, Limited, Lewisham, displayed a superb lot of exhibition Chrysanthemums in large stands, of which Mr. Gilbert Drabble (pure white), Mrs. Thorpe (fine bronze), Glaucus (white, incurved), Francis Rowe (fine chestnut bronze), Mrs. J. B. Riding (light yellow), Miss Roope (golden orange) and J. G. Day (white, drooping Japanese of immense size) were noted. In the singles, Mensa (pure white), Sylvia Slade and Florrie King were among the best. Edward Perkins (yellow) was also very fine.

Messrs. Clibran and Sons, Altrincham, displayed a very fine group of the winter-flowering Begonias in pots, of which Duchess of Westminster (fine semi-double-flowered variety, clear salmon pink), Mr. T. H. Cooke (rose pink), Mrs. Clibran (pink), Beauty of Hale (salmon), Emily Clibran (orange), and Clibran's Pink (rosy pink), in long trusses or sprays, were very charming. Scarlet Beauty is an exceptional bit of colour, while Splenda and Eclipse are crimson-scarlet and salmon red respectively. Lucy Clibran is a good break in colour—buff and rose—while Miss Clibran is a clear pink shade of much excellence. Altrincham Pink is one of the freest of all, and of deep salmon shade.

Messrs. Price and Fyfe, Grove Park Nursery, Lee, S.E., showed Carnations and Chrysanthemums; White Wonder, May Day, Mrs. Ward and Lady Alington among the former, and Silver Tip, Godfrey's Perfection (Anemone), David Ingamells (rich yellow) and Mrs. Luxford (chestnut red) of the latter, being among the best. Foxhunter (red) and Mrs. E. Rogers (greenish incurved) were also noted.

Messrs. T. S. Ware, Limited, Feltham, showed a very fine collection of alpine and other hardy plants in pans, the Darlingtonias, Sarracenias and Shortias showing great colour, richness and beauty. Saxifrages of the choicest, Meconopside, Potentilla Gibson's Scarlet, Parochetus communis, Rosmarinus officinalis prostrata and shrubby Veronicas were all noted in the ground. Erigeron Quakeress is a very pretty, profuse-flowering perennial of much value.

Messrs. John Waterer and Sons, Limited, Bagshot, Surrey, staged across the western end of the hall a grand collection of shrubs, Hollies, conifers and the like, in superb condition and abundance, bordering the whole with Veronica buxifolia. Among the more important were Olea ilicifolia, Ilex Perny, Ilex crenata latifolia (with black fruits), Abies lasiocarpa, Cupressus Westermanii (rich golden), Retinospora ericoides, Phillyrea decora, Abies Douglasii glauca elegans and many more. A feature of this fine group was the number of specimen plants it contained, standard and pyramid Hollies being plentiful and of large size. The freshness of the examples, too, appealed to one, while the choice of variety alone should have been sufficient for all tastes and purposes.

Messrs. J. Peed and Sons, West Norwood, S.E., had a capital group of single-flowered Chrysanthemums, of which Phyllis (old rose) and Charles Dickens (yellow) were perhaps the best in a large group.

Messrs. H. Cannell and Sons, Swanley, displayed a nice lot of Zonal Pelargoniums in their usually attractive style. Mrs. J. Temple Thomson (salmon), Sydney (pale rose pink), Mrs. W. H. Daniels (orange salmon), Lord Kitchener (crimson-scarlet), Maxime Kovalesky (brilliant orange scarlet) and Mrs. Stidolph (china pink) being the best in a large display. Single and other Chrysanthemums were also shown. Mrs. Fulkins, Hairy Wonder and Bacchus (a curiously-formed head of florets) being among the more interesting.

Messrs. Allwood Brothers, Hayward's Heath, showed excellent Carnations, Triumph (crimson), May Day, Fairmount (salmon), Enchantress, and Mary Allwood (a really fine Carnation). Empire Day and Rosette were also excellent.

Messrs. Stuart Low and Co., Enfield, showed some excellent vases of Carnations, such as Lady Alington, Baroness de Brien, Cinnabar and White Enchantress. Some good Cyclamen were noted.

Messrs. W. Wells and Co., Limited, Lewisham, had a sumptuously-arranged group of Chrysanthemums, of which the new white-flowered Queen Mary made an even more sumptuous centre. There must have been a hundred or more of its flower-heads, it being flanked on the right by Mrs. G. Drabble, and on the left by Mrs. W. Turner, both grand exhibition sorts. Mrs. D. C. Drexel (pink) was also fine. Singles in superb array were abundant and good.

Messrs. J. Veitch and Sons, Limited, Chelsea, arranged a superb lot of single Chrysanthemums, of which Feltham (crimson) was one of the more notable. White Pagram, Primrose Girl, Golden Pagram, Miss Mary Pope (pink), Sylvia Slade (amaranth with white circle and cinnamon) were other good sorts. Felton's Favourite was also in good condition.



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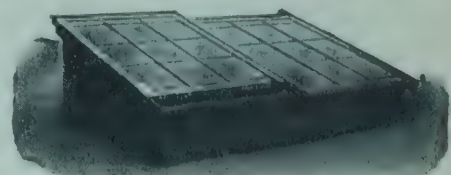
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Sir George Faudel-Phillips, G.C.I.E., had a group of *Plumbago coccinea* and *Clerodendron fallax*.

Messrs. Cragg, Harrison and Cragg, Heston, showed single and decorative Chrysanthemums. *Crimson Queen*, *Snow Queen*, *Merstham Jewel*, *Elsa White* (single) and *Mensa* (the best of all-white singles) were noted.

Mr. L. R. Russell, Richmond, had a table of *Ivies*, *Aucubas* and other useful shrubs and evergreens. *Pernettyas* were also good.

A good series of *Streptocarpi*, in great variety of colour, came from Mr. Beckett, Aldenham House.

Messrs. J. Piper and Sons, London and Barnes, showed a very elaborate collection of encrusted Saxifrages, an almost endless variety, in which there was much charm. The group was most tastefully arranged.

Messrs. William Cutbush and Sons, Highgate, contributed a table of *Begonias*, with retarded plants, *Lilies*, *Lily of the Valley*, *Astilbes* and the like. The *Carnations* from this firm were very fine, such as *Mrs. L. Mackinnon* (scarlet), *White Wonder*, *King Manuel* (salmon, very fine), *Viscountess Goschen* and *Mrs. Waldorf Astor* (yellow-ground fancy) being very conspicuous. *Lady Meyer* is a particularly good pink.

Messrs. H. B. May and Sons, Edmonton, showed a table of *Ferns*, *Palms*, *Cyclamen* and *Poinsettias*, nicely arranged in groups.

Mr. C. Engelmann, Saffron Walden, showed good vases of *Carnations*, such as *Lady Northcliffe*, *Triumph*, *White Perfection* and *Rosa*.

A table group of single Chrysanthemums was arranged by Mr. T. Ward, Bishop's Stortford. There were many good sorts.

The Misses Hopkins, Shepperton-on-Thames, showed a small rock and water garden.

Mr. J. Box, Lindfield, Sussex, had a particularly good group of single-flowered Chrysanthemums, of which *Golden Spray* (a miniature in the way of *C. sinensis*), *The Allen Carter* (rich yellow), *Mrs. Patching* (bronze), *Harold Shaw* (white), *Phyllis Bryant* (golden, very fine), *Cannell's Crimson*, *Mensa* (white), *Ceddie Mason* (reddish crimson) and *Lady Furness* (deep terra-cotta) were particularly fine.

Mr. G. Reuthe, Keston, Kent, showed a remarkable collection of rare and choice shrubs. *Berberis Bealii*, *Evergreen Beeches*, *Olearia ilicifolia* (very beautiful), *O. Colensoi*, *Lomatia ferruginea*, *L. tinctoria*, *L. silvifolia*, *Phyllocladus trichomanoides*, *P. alpina* (very rare), *Myrtus bullatus*, *Fagus cliffortioides*, *Athrotaxis doniana* and *A. imbricata* were among the finest in a choice lot. Apart from these there was a great assortment of Himalayan *Rhododendrons*, many of them of great rarity.

FLORAL COMMITTEE'S AWARDS.

Awards of Merit.—Chrysanthemum *Mrs. W. T. Smith*, from Mr. A. Smith, Roehampton; *Carnations Mary Allwood* and *Salmon Enchantress*, from Messrs. Allwood; *Carnation Snowstorm*, from Mr. Lawrenson, Yarm-on-Tees; Chrysanthemum *Miss May Fox*, from Messrs. Jones; Chrysanthemum *Audrey*, from the Manor House Nurseries, Cardiff; Chrysanthemum *Michael Harrison*, from Mr. Harrison, East Grinstead; and *Begonias Eclipse*, *Scarlet Beauty*, *Splendour* and *Lucy Clibran*, from Messrs. Clibran.

Silver-gilt Flora Medals.—Messrs. Waterer for evergreens, conifers, &c.; and Messrs. Wells for Chrysanthemums.

Silver Flora Medals.—F. Galsworthy, Esq., for paintings; Messrs. Jones for Chrysanthemums; and Messrs. Veitch for Chrysanthemums and *Begonias*.

Silver Banksian Medals.—Mr. J. Box for Chrysanthemums; Messrs. Clibran for *Begonias*; Messrs. Cutbush for *Carnations* and greenhouse plants; and Messrs. May for *Cyclamen*, &c.

CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

THE fourth meeting of the winter session was held in the Institute of Agriculture on Friday last. Mr. Malins Smith, the Principal of the Institute, presided, and about sixty members attended. Previous to the lecture an exhibition of Chrysanthemums was held, the winners being: First, Mr. Hunt; second, Mr. Killingley; and third, Mr. Unwin. Mr. C. E. Searls then commenced his lecture on "Lawns, Bowling Greens and Tennis Courts." The lecturer, in the course of his remarks, paid a great tribute to the lawns and greens of this country, saying that not only were they the pride of our mansions, but the pride of the world. Few lawns, however, grew naturally; the majority had to be specially laid, and this work required careful attention and should be carried out by experienced workmen. The turf to be used should be cut and rolled in pieces of 1 yard by 1 foot, and be about one and a-half inches thick: it should be laid as soon as possible, and well beaten and rolled, then left until the grass started to grow, when more rolling should be done. The lecturer advised the members to be careful and not roll a newly-made lawn too much in wet weather.

FINCHLEY CHRYSANTHEMUM SHOW.

THE annual show in connection with the Finchley Chrysanthemum Society was held recently in the King Edward Hall, and proved a great success. The principal prize, a silver challenge bowl, presented by the society, and £2 in cash, given by the president, was won by Mr. A. Jones, gardener to Miss Wyburn of Hadley Manor. Competitors were called upon to display four vases of specimen Japanese blooms, distinct, each vase containing five blooms of one variety. Mr. Jones showed a vase of *F. S. Vallis*, a vase of *F. Chandler*, a vase of *Lady Ryder* and a vase of *Master Jones*, and obtained 17 points. Full points were awarded for his *F. S. Vallis*, which were splendid, and practically won for him the first prize. Mr. C. H. Gosling came second with 15½ points. His vase of *A. T. Miller* looked particularly fine. Special interest was taken in a new class, the outcome of an idea by the president, who offered a silver Rose-bowl for the most gracefully-arranged floral table decoration of Chrysanthemums with *Fern* foliage, including any variety of *Asparagus Fern*. Of the three judges, two—Mrs. S. B. Mayall and Miss Griesbach—

were ladies, and they awarded the prize to Mrs. R. Grace, whose arrangement was exceedingly artistic and graceful. A striking array of single Chrysanthemums was displayed by Mr. W. H. West, who carried off the five-guinea challenge shield presented by Mr. T. A. Williams. The show of fruit and vegetables was quite up to the high standard of recent years, and Mr. J. Tuck, who won the first prize for a collection of vegetables of six distinct kinds, deserves a special word of praise.

GARDENERS' UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

NOTHING is more encouraging to the committee of this invaluable society than to have to deal with a good influx of new members each month. Mr. Charles H. Curtis, presiding at the last monthly committee meeting, held at the Royal Horticultural Society's Hall on Monday, November 11, elected fifty-five new members, bringing the membership of the society up to 1,900. The committee hope that 2,000 members will be on the books before the close of the year. The sick-pay for the month amounted to £39 2s. Several members took advantage of Rule 19 and withdrew double the amount of interest standing to their credit. The sub-committee's report was confirmed, and the secretary reported on the returns of the National Insurance cards. Gardeners who wish to join at the next meeting should send their application to the secretary (*pro tem.*), 35, Alexandra Road, West Kensington Park.

EAST ANGLIAN HORTICULTURAL CLUB.

At the November meeting of this club Mr. E. Peake gave a very interesting lantern lecture entitled "Some Garden Memories." Besides his love of flowers, Mr. E. Peake is a keen photographer, and when he visits a garden he usually brings away some memento in the way of a picture. It was most interesting to see the glories of a spring or summer display in Mr. So-and-So's garden depicted upon the screen on a damp, chilly November night. Besides, Mr. Peake has a splendid store of anecdotes connected with many of his pictures, or interesting points of culture and such-like, all of which added charm to the lecture. It was amusing to find one's self appearing upon the screen when least expecting it. A very hearty vote of thanks was accorded him.

There was a fine exhibition of fruits, flowers and vegetables. In the former section the Apples in a special prize class were very numerous, and splendid in size and colour. In flowers the most praise was due to the plants of *Begonia Gloire de Lorraine* from Mr. E. F. Greene, gardener to E. Reeve, Esq., Catton, and to Mr. W. Shoemsmith, gardener to F. W. Harmer, Esq., Cringleford, for his Orchids. Potatoes and Onions for special prizes given by Messrs. Daniels Brothers, Limited, Norwich, made a bold display.

"Country Life" for November 23 contains, among other articles, an illustrated account of "Midmar Castle and Barra Castle"; "Tales of Country Life: A Bunch of Violets," by Olive Clinch; "Algonquin Songs and Legends.—II," by Algernon Blackwood; "Impressions of the Farne Islands.—II," (illustrated), by E. L. Turner; "The Gordon Memorial College, Khartoum"; "A Town Garden" (illustrated); "Wild Country Life," by Seton Gordon.

THE EDITOR'S TABLE.

Late Roses from Perthshire.—Mr. J. Fairley, The Gardens, Castle Menzies, sends a very beautiful collection of Roses. These are as fresh and good as any we have seen in mid-September, and serve to remind us of the value of modern Roses for autumn flowering. Mr. Fairley writes: "I have been prompted to send for your table these Roses from a quantity cut here on the 13th inst. Included are *Souv. de Pierre Notting*, *G. Nabonnand*, *Grüss an Teplitz*, *Billiard et Barré*, *Lady Battersea*, *Caroline Testout* and *Peace*. Should the present weather continue, there are good prospects of our getting Roses for a week or two longer."

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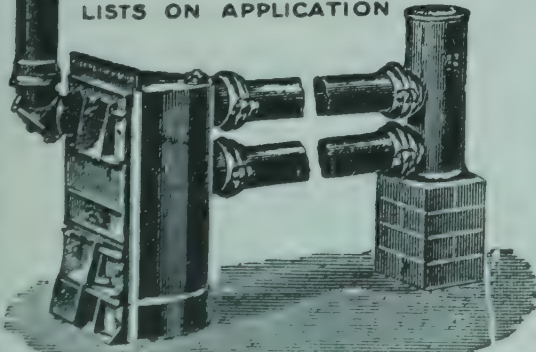
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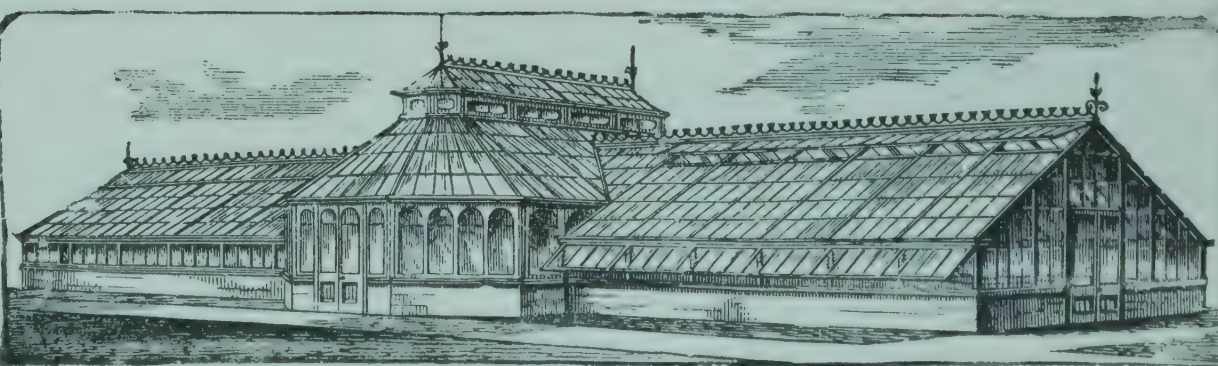


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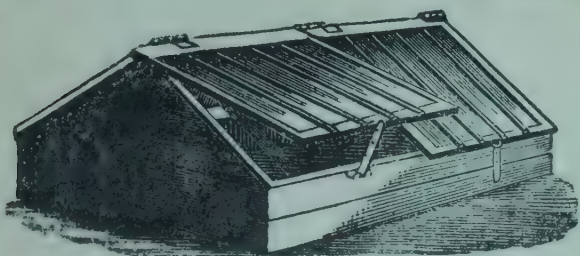
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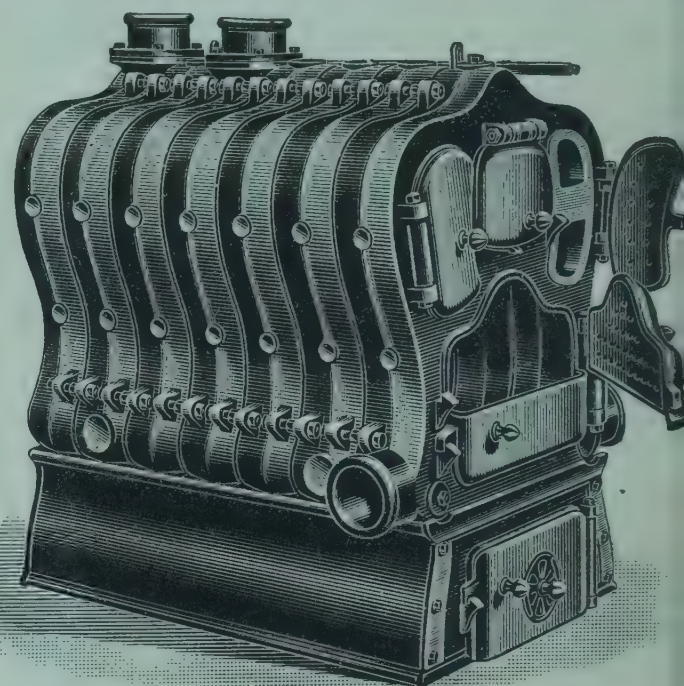
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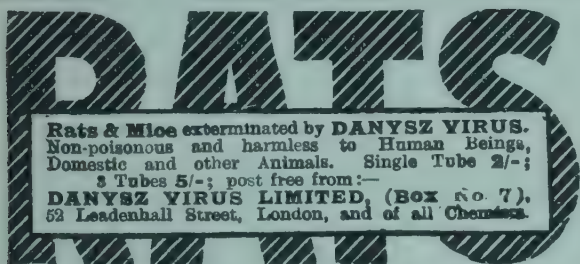
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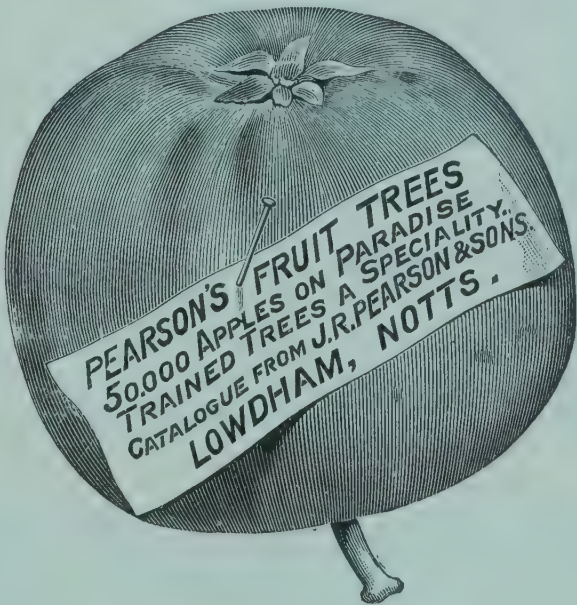
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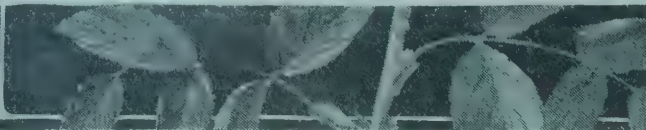
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No. 2141.—VOL. LXXVI.

NOVEMBER 30, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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NOTES OF THE WEEK.

Tulip Show in London Next Year.—We understand that the Council of the Royal Horticultural Society will hold a special Tulip show in their hall at Vincent Square during the spring of next year. A considerable portion of the hall will be devoted to these flowers, and the suggested date of the exhibition is the Wednesday before the great spring show at Chelsea. We hope to be able to publish fuller details shortly.

The Grading and Packing of Fruit.—Since our last issue went to press, we have ascertained that the Federation boxes for packing fruit, mentioned by Mr. A. H. Pearson on page 586, can be obtained, cut ready for nailing, from Messrs. G. Monro and Co., Covent Garden; J. A. S. Smythe, Bridge Wharf, Maidstone; and W. and C. Pantin, 147, Upper Thames Street, London, E.C. The last named will not, however, supply less than 1,000 boxes.

The King's Spear.—In the King's Spear (*Asphodelus ramosus*) we have a capital plant for a moist and rather shady place, where this noble subject is seen in perfection. In dry, poor soil it does not increase well, and never shows its real beauty. If planted in good, rich, rather moist loam, it grows to 3 feet or more high, and gives above its long, narrow leaves branching spikes of white flowers. It is propagated by division or by seeds.

National Chrysanthemum Society's Shows for 1913.—The shows to be held by the National Chrysanthemum Society at the Crystal Palace in 1913 have now been definitely fixed for October 1 and 2 and November 5, 6 and 7, and the agreement has already been signed between the society and the authorities of the Crystal Palace. Will other Chrysanthemum societies throughout the kingdom kindly make a note of these dates with a view, as far as possible, to preventing any overlapping?

A Useful Climbing Groundsel.—In the Succulent House at Kew one of the showiest plants at the present time is *Senecio canalipes*, a South African species, which occupies a position on one of the rafters. Of succulent consistency, its long, slender branches attain a length of 15 feet or more, and are clothed with green, Ivy-like, fleshy leaves on stalks 2 inches to 3 inches long. At the present time it is covered with large heads of bright yellow flowers, which appear from the points of the branches. In some instances these inflorescences are as much as 9 inches across, while the individual heads are nearly an inch in diameter, the ray florets being more conspicuous than the disc florets. It is well adapted for planting in a structure where a minimum winter temperature of 40° to 45° is maintained, and is suitable either for a rafter, pillar or trellis.

Chrysanthemum Mrs. Gilbert Drabble.—Our Paris contemporary *La Vie à la Campagne* gives as its cover illustration for its issue of the 1st inst. a gigantic picture of Mrs. Gilbert Drabble, from a photograph of the bloom staged last year at the Paris Show by Mr. Thomas Stevenson, and which was awarded the silver-gilt medal for the finest bloom in the show. There are in the same issue several other reproductions of Chrysanthemums grown by this eminent exhibitor.

The Himalayan Rockspray.—*Cotoneaster frigida*, native of the Himalaya, is a most attractive winter shrub by reason of its bright orange crimson fruits. If untouched by birds, these fruits remain showy throughout the winter, and there are few shrubs that can vie for effect with the well-berried and half-drooping branches of *Cotoneaster frigida*. At this season the berry-crowded branches are particularly fine, making this shrub very useful for grouping in places where late autumn and winter effects are desired.

The Constantinople Nut.—This interesting Hazel, known botanically as *Corylus Colurna*, is producing Nuts with remarkable freedom this year. The Nuts are produced in clusters of usually five or six, and are somewhat smaller than those of the common Wood Nut. There is also a good promise of male catkins for the coming spring, and the young catkins and clusters of Nuts make this tree interesting at this season and at this eventful period in the history of Constantinople. The tree will attain a height of 60 feet, and was introduced from Asia Minor in 1665.

A Beautiful Berried Shrub.—One of the most ornamental shrubs in the garden just now is *Cotoneaster Simonsii*, a fairly common, semi-evergreen species from the Himalaya. Its almost erect, slender branches are thickly clothed with oval-shaped, orange scarlet berries that were highly iridescent in the wonderful sunshine that was experienced in many districts last Sunday. This *Cotoneaster* will thrive in almost any kind of soil, and we have seen it successfully used for a hedge where strict formality of outline was not desired.

The Pyrenean Adonis.—*Adonis pyrenaica* is one of the useful bardy flowers which have never been appraised at their real value. It is not nearly so plentiful in gardens as the Spring Adonis (*A. vernalis*), though it has several good qualities to commend it. It comes into bloom later than its ally of the spring, and is rather taller, growing to 1 foot or 15 inches high. From the root it sends up stems bearing narrow leaves and good-sized yellow flowers, which appear about May. It will thrive in any good loamy soil, and is always finer in one inclining to stiffness than in a light and open one.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

November Rose Blooms.—In a recent issue there appeared a note about the gathering of some good Roses in an Essex garden on November 3. On November 11 in this garden—Ken View, Highgate—twenty four really good flowers of the following varieties were gathered: Richmond, Mme. Abel Chatenay, Dr. C. Hall, D. Page-Roberts, La Tosca, Lady Ursula, Conrad Meyer, Comtesse I. Hardegg and Mme. E. Metz. Such a rich find must have been impossible had it not been for the spell of mild weather we have experienced.—T. C.

Lilium longiflorum.—I was much interested in one of the "Notes of the Week," issue November 16, on the Lilium above named. It is, indeed, an ever-welcome flower, useful for cutting, especially for placing in the tall, trumpet-shaped vases now so fashionable for the furnishing of the greenhouse and the conservatory. Amateur cultivators are very fond of this Lilium, and I would like to refer to the fact that the plants are often sadly crippled when subjected to a cold temperature suddenly after being forced on in a warm house and moist atmosphere in the early stages of growth. Having seen so many fine plants ruined in this way, I would like to warn the beginner against causing such sudden checks to the growing plants.—G. G.

Daffodils in New Zealand.—I have just received from a Colonial customer copies of the New Zealand *Weekly Graphic* dated September 18 and 25, giving an excellent account and particularly good illustrations of the Auckland Daffodil Show held on September 5 last. Judging from the account of the show and the capital photographs reproduced of individual blooms, this go-ahead Colony bids fair to become a formidable competitor of the Old Country. The raising of seedlings, too, appears to be making some headway, and among flowers exhibited at the show may be numbered Trewithiel, Prime Minister, Trafalgar, Aorangi, Tongariro and General Manager. All these flowers were raised by Professor Thomas, and, to judge by the large bunches of Trewithiel and Tongariro, he has evidently been working with the Daffodil for some years. I may add that interesting pictures also appear in one of the papers of groups taken at the National Sweet Pea Society's trials at Sutton and Hinckley, everything being reproduced in excellent form and little trouble being experienced in picking out leading lights of the English Sweet Pea world.—F. HERBERT CHAPMAN.

Charming November Flowers.—Quite near a path in the alpine or rock garden the lovely dwarf-growing *Polygala Chamæbuxus purpurea* and *P. C. grandiflora* are just now in full flower, and are very beautiful for the dull month of November. The first named soon grows from a small plant into a good mass, and may be made use of in many parts of the garden, as a carpeting, for instance, to Azaleas and Rhododendrons. It being an evergreen, it is of more interest among deciduous Rhododendrons. *P. C. grandiflora* is also quite hardy, and the flowers are creamy white and most freely produced. Each resembles a small Sweet Pea. Neither of these grows more than about nine inches high, so that they are good plants for small as well as large gardens. They are also very easily propagated by layers or cuttings, and soon make nice sized clumps. They will grow in nearly any soil in which a little fine peat and leaf

soil has been incorporated. The drainage should be made good and the plants confined to the shady side of the border or alpine garden, or wherever they are planted, as they love shade (not overhead) and moisture. In February and March, when blooming is over, it is well to protect the growths from cutting winds by placing a little peat or leaf-soil or Bracken around them, when the plants will stand many degrees of cold without the least injury.—W. A. COOK, *Leonardslee*.

The Grading and Packing of Fruit.—This subject, referred to on page 586, issue November 23, by Mr. A. H. Pearson, with an editorial footnote, is a very important one. For ten years I marketed fruit, from Grapes to Strawberries, and during that time only lost 6s. owing to faulty packing out of many hundreds of pounds' worth of produce. Through grading and packing mainly in boxes with tissue paper, cotton-wool and dried beaten moss raked up in the fields, we secured the highest prices. Moss, where filling-up material is necessary, well beaten and prepared, does not taint fruits, and this I proved by packing annually about four thousand Peaches and Nectarines in it. In addition to grading carefully, we advised the salesman the night previous to the despatch of the goods what to expect, and as he could rely upon the quality, the produce was often sold the next morning before it arrived at its destination, and higher prices were secured. With regard to Pear Marie Louise flowering too easily on warm walls as to be generally destroyed by spring frosts, mine were given just sufficient light protection to prevent such loss, and, having trees in other positions, the supply of these fruits was prolonged a little. I quite agree with Mr. Pearson that Victoria Plum does best grown in the open, and have not found examples more satisfactory than those grown as bushes.—B.

Rock Gardens in the Making.—Mr. E. H. Jenkins, the writer of the article on the above subject, page 590, strikes the true note in all he says about the natural grouping of the rock necessary in the making of a good rock garden. I am glad that he gives unstinted praise to a certain rock garden at the last International Show. This, to my mind, stood out *facile princeps* above all the rest, its effectiveness resulting from its simplicity and from its truth to Nature in her happiest and most reposeful mood. Mr. Jenkins says truly that "far too many artificial rock gardens err on the side of pretentiousness." Many builders of rock gardens seem too desirous of showing off their rocks rather than the exquisite inlaid jewellery of an alpine slope. They err in piling up their blocks of sandstone or limestone as though they were the "tumbled fragments of an infant world," and I find it is no easy matter to persuade people to have their fine rocks deeply embedded, or, indeed, bedded at all, in the loamy banks prepared for them. It is quite a mistake, however, to have the rocks too prominent. One of the best examples to follow is some natural outcrop of rock, not too clearly defined nor too regular, as in the level rocky terraces in the canyons of the Colorado, but where former lateral and vertical pressure has altered the stratification, and where the tops of the rocks have been discovered by the processes of denudation, and where weathering has played its part in the ages. This is well exemplified by Mr. Jenkins when he writes about the "teachings of our own hillsides," and I am looking forward with great interest to more articles of his on "Rock Gardens in the Making."—G. H. ADDY, *Ightham, Kent*.

Fragrance in Chrysanthemums.—In a "Note of the Week" (October 26), on the single Chrysanthemum Eric Harvey I was particularly impressed by your words "It is very fragrant." Now, was not your comment somewhat remarkable? I suggest it was for the following reason. Looking up four well-known garden books—one of them being on Chrysanthemums only by an expert—also various notes and articles by writers in papers on this flower, I find no reference whatever to any indication of fragrance. Why is this? Perhaps some authority on this favourite will offer a few remarks. Fragrance is such a recommendatory virtue for a plant to possess, that surely there can be nothing but added interest and extended admiration in store for the Chrysanthemum should it be found to be the owner of such sweet wealth. A short time ago I had some sprays of a pink Pompon given me, and it was the decided sweet smell of these which made me take note of your remark; the variety was given as Hannah Stacey. Since then I have had some pieces of a single pink, with a slight inclination to streaks of white on some of the petals, also given me, and this was still more perfumed. Its name I do not know. Is the fragrance only to be found in certain singles and Pompons? Come forward ye 'Mum authorities and explain. The usual eulogies of this flower are: Last long when cut; useful for decoration; lovely and numerous colours, &c. Can the books and catalogues of the future hope to add the further commendation? Some are fragrant.—C. TURNER. [The flowers of the variety Eric Harvey emitted a delightful fragrance that reminded us of honeycomb. Unfortunately, this is not found in many other varieties, but we should be glad to hear of others that are fragrant.—ED.]

How to Exterminate Moles.—In a recent issue of THE GARDEN a correspondent was advised that nothing could be done to destroy moles under trees, and was advised trapping as a remedy; but to catch a mole in loose soil with the ordinary iron trap is, to any but an expert, a most difficult feat, and few seem to know the habits of the creature well enough to select the right part of the run in which to place the trap. It is not generally known that moles are easily caught in pitfalls placed in the main runs. Deep, narrow biscuit tins or earthenware jars, such as are commonly used in gardens to trap mice, may be used. The receptacle used must be sunk till the top is exactly on a level with the bottom of the run, which must be carefully smoothed off and end abruptly at the edge of the jar or tin, and be covered with a slate or tile to exclude all light. But by far the easiest way of destroying moles and all other underground vermin is by injecting bisulphide of carbon in their runs and burrows. Open the run near where the moles are working or where they have their nests and pour in an ounce of the bisulphide, and at once cover tightly with a flat stone or tile to prevent the fumes from escaping. Leave it thus for a couple of minutes, then remove the covering and apply a lighted match to the hole and explode the vapour, when any vermin within reach of the fumes will be instantly killed. The liquid should not come into actual contact with the roots of any plants or trees, but the vapour will do them no harm. It must be remembered that bisulphide of carbon is both poisonous and very highly inflammable. It must on no account be brought near fire, and the person using it should not be smoking at the time. It is, however, a most useful substance, and by its aid the garden can be kept free of many underground pests.—H. C. WOOD, *The Gardens, New Place, Lingfield, Surrey*.

A Hybrid Chestnut.—At this season many intending planters are, naturally, on the look-out for rare and little-known subjects for the garden and pleasure grounds. *Æsculus plantiënsis* is a distinct and pleasing hybrid Horse Chestnut raised in the nursery of Messrs. Simon Louis Frères at Plantières-lès-Metz. It came from a seed of the common Horse Chestnut, which had been crossed, presumably, with *Æ. carnea* (rubicunda). In habit and growth the young trees are as free as the female parent. The flowers are delicate pink or pale rose in colour, the size of the terminal racemes being about the same as those of the common Horse Chestnut. An important point in favour of this tree for planting in public parks, open spaces and streets is that it does not produce fruits. Those in charge of the places named, where in the past the common Horse Chestnut has been freely planted, know only too well the trouble and often danger entailed in autumn by boys throwing sticks and stones up into the trees as long as there are fruits hanging.

Iris gracilipes.—One of the daintiest of all the lovely species of the Fleur-de-Lis which ever graced a garden is *Iris gracilipes*, a gem of the first water without cavil, and a rare beauty which should find its way into every rock garden or choice border where the very *élite* of plants are to be found. It comes from Northern Japan, and belongs to the Evansea section, one which includes the lovely *I. tectorum* also, with *I. cristata*, *I. lacustris* and a few more. Words fail one in attempting to tell of it. It is less than a foot high with me, the leaves attaining about that length when fully developed and the stem being somewhat below that stature and carrying delightful little lilac flowers with a yellow crest down the falls. Such is a bald description of the main colouring, but it is insufficient to convey a full idea of the shading and marking of this delightful *I. gracilipes*. It flowers in summer with me, and is thriving in the rock garden on a flat spot in loam, sand and grit. It is a rhizomatous and not a bulbous *Iris*.—S. ARNOTT.

FORTHCOMING EVENTS.

December 2.—National Chrysanthemum Society's Floral Committee Meeting at Essex Hall, 3 p.m.

December 3.—Royal Horticultural Society's Meeting and Perpetual Flowering Carnation Society's Show (two days). Lecture on the first day by Mme. de Tzikos St. Leger on "The Vegetation of the Island of St. Leger in Lago Maggiore." Scottish Horticultural Association's Meeting.

December 5.—Linnean Society's Meeting.

December 7.—Société Française d'Horticulture de Londres Meeting.

December 9.—United Horticultural Benefit and Provident Society's Committee Meeting.

December 11.—North of England Horticultural Society's Meeting at Leeds.

GARDENS OF TO-DAY.

WESTWICK GARDENS, NORWICH.

THROUGHOUT the broad acres of Norfolk the craft of gardening occupies a prominent position in the eyes and minds of the public. The East Anglian Horticultural Club, with its head-quarters at the ancient city of Norwich, is one of, if not the strongest in the country, and among the most highly respected of its members is Mr. G. Davison, head-gardener at Westwick, the beautiful and old-world seat of Colonel Petre. The grounds at Westwick comprise

completely revolutionised the flower and given us varieties beyond the wildest dreams of imagination. It is now nineteen years since he first set himself the task of improving this flower, and by working on well-defined lines he has this year startled the whole world by giving us that beautiful variety *Star of the East*, which has already gained three first-class certificates, including one from the Royal Horticultural Society. Five years ago Mr. Davison secured the first seedling of this magnificent flower, and now he has about one thousand seven hundred plants, one of the accompanying illustrations showing a border in the kitchen garden filled with it. We hope next spring to publish a coloured plate of this

Montbretia, which has flowers of rich orange red colour and from 4 inches to 4½ inches in diameter. When Mr. Davison first started working among the *Montbretias*, he had the variety *crocosmæflora*, and a variety named and raised in France, *Golden Sheaf*. These he crossed, and since that time all the beautiful varieties he has given us have been secured by intercrossing his own seedlings. Among these earlier varieties are *George Davison*, *Ernest Davison*, *King Edmund*, *Hereward*, *Westwick*, *Norvic* and *Prometheus*. All these secured awards of merit from the Royal Horticultural Society, and, in addition, *Prometheus*, sent out six years ago, and of which a coloured plate was published with our issue dated January 19, 1907, was awarded first-class certificates at the following shows: *Shrewsbury*, *York*, *Edinburgh*, *Amsterdam* and *Paris*. Now it is eclipsed by *Star of the East*. Mr. Davison's method of growing *Montbretias* is as follows: Plant in March in good, sandy loam that contains a fair quantity of leaf-soil, select a rather cool position, and give the plants plenty of moisture. Lift in autumn and store in a cold frame with their tops shortened to about six inches, just keeping severe frost away. Take the lights off on fine days.

The Flame Flower.—This beautiful plant, *Tropæolum speciosum*, the despair of so many gardeners, is grown remarkably well at Westwick. Mr. Davison gives it a north or north-west position

against a wall some twenty feet high, draping old fish-netting for it to climb over. In his opinion it needs a very cool root-run, with plenty of humus and sand in the soil. Every other year in February he lifts the roots, digs out the old soil to a depth of 18 inches, fills in with good soil, and replants the roots about four inches deep. These plants grow about twelve feet high the first year, and the next season reach the top of the 20-foot wall and flower profusely. By treating a portion in this way each year, growths of one and two years are always available.

Gentiana acaulis Eighty Years Old.—A particularly interesting feature at Westwick is two oblong beds of this charming alpine, which have



A WELL-TRAINED TREE OF PEAR DOYENNE DU COMICE AT WESTWICK GARDENS.

about two thousand acres, the greater part of which is devoted to woodland and a large portion to a fruit farm, all of which come under the supervision of Mr. Davison. In the woods is one of the most beautiful pieces of ornamental water that we have seen outside the borders of Scotland, its banks being planted with Scotch and Cluster Pines that impart a sense of grandeur to the whole. But it is of the gardens that we would specially write.

The Montbretias.—When, in the future, some scribe essays to write the history of these beautiful hardy flowers of late summer and autumn, it will be necessary for him to devote several chapters to Mr. Davison's work, for he has

been in existence at least eighty years and possibly well over a century, and which have never been disturbed. The plants are remarkably healthy, and at the time of our visit in mid-September had a few of their rich blue flowers standing well up above the carpet of green foliage. Mr. Davison's family have been gardeners at Westwick for about a century, his father, grandfather and great-grandfather occupying that position before him, and it is through this long family association with the gardens that the age of the Gentians is known.

The Herbaceous Border.—This is one of the features of Westwick, and one that owes its inception to Mr. Davison. During the whole of spring, summer and autumn it is exceptionally beautiful, and, in common with everything else that he sets his hand to, the flowers are all particularly well grown. Those who visited the horticultural section of the Royal Agricultural Society's show at Norwich last year will no doubt remember the magnificent exhibit of hardy flowers staged by him there. The accompanying plan of this well-designed border will, we hope, prove useful to others at this season of planting.

The Pergola.—Running from the mansion to the kitchen garden is a beautifully-designed pergola about one hundred yards long, thirteen feet wide, twelve feet high. This was erected by Mr. Davison about seventeen years ago, the pillars being bold Larch trunks. These have just had to be replaced, and he has now selected Chestnut, which, he thinks, will be more durable. The wrought-iron gate, which admits the visitor from the pergola to the kitchen garden, is one of the finest examples we have ever seen, and is of local workmanship, being made at Norwich.

Daffodils and Habranthus.—To show the activity of this excellent gardener, we must just mention that the hybridisation of Daffodils has received his attention for some years past, and several high-priced varieties that have been placed on the market during recent years by the leading firms have been raised by him. Habranthus pratensis, too, he grows in abundance, planting the bulbs outside much in the same way as he does his choice Daffodils. We should say that Mr. Davison has the largest stock in the world of this beautiful and rather rare bulbous plant.

Pears.—All hardy fruit is particularly well done at Westwick, but of Pears Mr. Davison makes a



MR. G. DAVISON, THE RAISER OF THE NEW MONTBRETIA PROMETHEUS AND STAR OF THE EAST.

speciality. Go where you will, you find Pears growing to perfection, the walls being covered with beautifully-trained trees. At the British Fruit Show held by the Royal Horticultural Society in London, Pears grown at Westwick have won many prizes, beating those grown in the more favoured county of Kent; and for the benefit of any who may be sceptical on the point

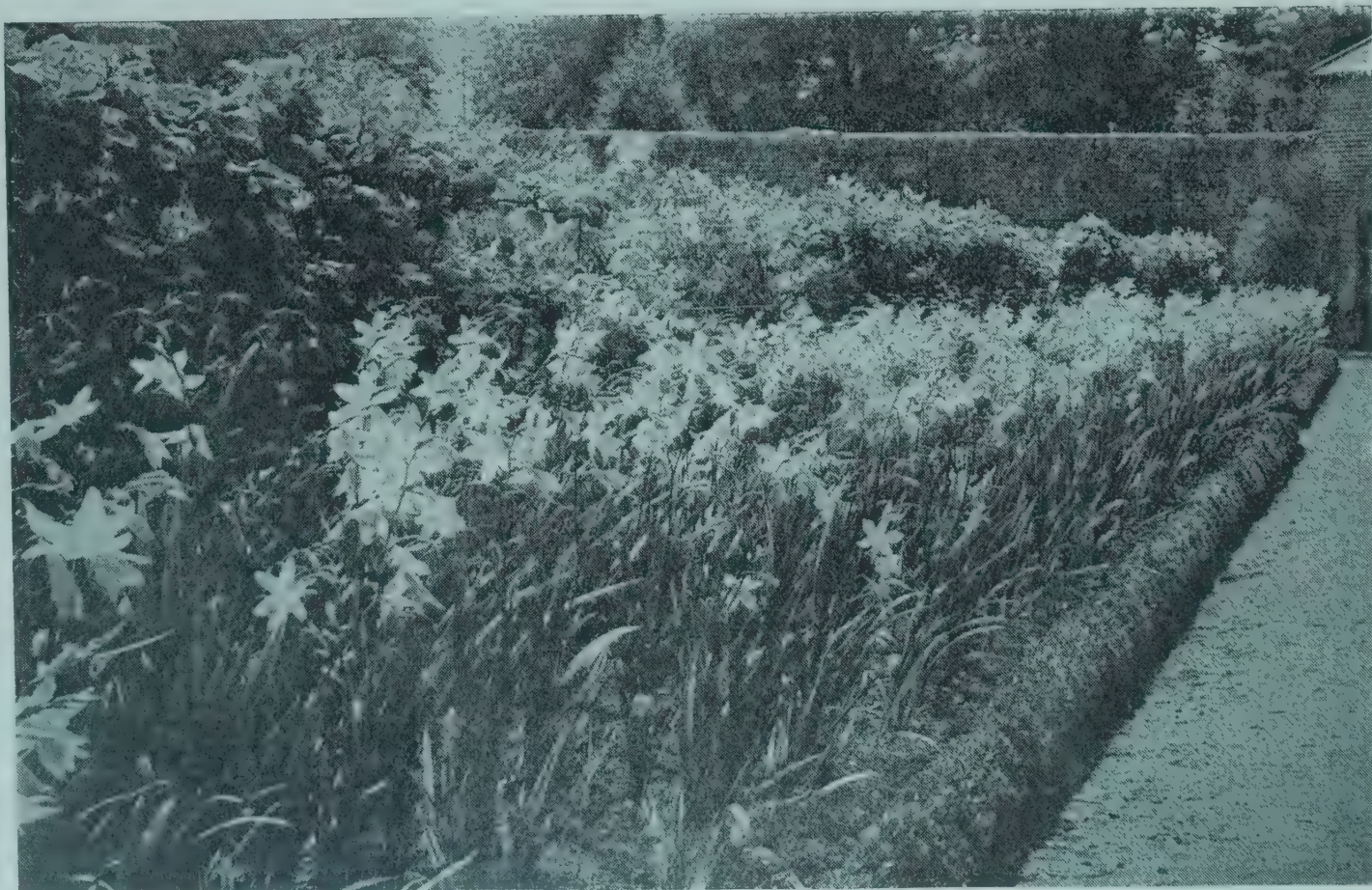
we may mention that Mr. Davison has not a single tree growing under glass. Doyenné du Comice is his favourite variety, and it is interesting to note that in the spring, when the flowers are open, artificial pollination, with the aid of a rabbit's tail fastened to a long stick, is resorted to. The whole of the trees are beautifully trained and well cared for, the accompanying illustration of a specimen of Doyenné du Comice giving some idea of the method adopted.

A New Black Currant.—With the idea of securing a new late-ripening Black Currant with a tough skin, so that it will travel well, Mr. Davison has commenced crossing existing varieties, and already he has some eight thousand seedlings well on the way. That he will be as successful as he has been in other directions we have little doubt.

STERILISING SOIL FOR EELWORM.

A CORRESPONDENT asks for directions as to sterilising earth for the destruction of stem eelworm. It is difficult to answer such an indefinite question, for everything depends upon the quantity of earth to be dealt with and where it is. Partial sterilisation of the soil is an efficient means of dealing with several pests that live in the soil, eelworms in particular, and it has the further curious effect of first delaying growth for a very short time, then hastening it, so that plants put into such soil quickly overtake those put into similar but untreated soil. The cause of this appears to be as follows: Most of the bacteria are killed, but not all. The minute animals that prey upon the bacteria are also killed, as well as eel-

worms and so on. The bacteria that remain are able to grow at a rate far exceeding that of those in soil where their animal enemies abound, and in growing they produce from the decaying matter which forms their food a correspondingly greater amount of ammonia. Plants, therefore, in this partially sterilised soil have greater stores of ammonia at their disposal than those in untreated soil and are consequently able to grow more rapidly. Other advantages are the prevention



A BORDER OF THE NEW MONTBRETIA STAR OF THE EAST IN THE GARDENS AT WESTWICK, NORWICH.

of the growth of moss on seed-pans and the destruction of weed seeds.

By far the most efficient method of effecting partial sterilisation is by heat. Other methods not so efficient, but able to be applied under certain circumstances, are flooding, drying out and the use of chemicals.

Heating by Steam.—The most effective way of heating is by the application of steam. Dry heat apparently occasionally causes undesirable changes, which check growth to a very great extent; but probably this is most marked when a high temperature is reached. As a rule, if a soil mass can be heated to 180° Fahr., that is sufficient to ensure most of the benefits of partial sterilisation. It is obvious that heat such as is required cannot be applied on a large scale outdoors, but on a small

but this should not be done to such an extent that the soil becomes charred. Several methods besides the use of the kitchen oven are in vogue. Heating the soil on a shovel over a fire, thrusting red-hot iron plates or even hot bricks into the soil heap, may be practised.

Treatment by Chemicals.—Carbolic acid, formalin, naphthalene, carbon bisulphide and so on are used at times; but their use is not unattended by danger to the crops to follow, and is not always satisfactory. The only method which at present seems to offer some degree of success outside is the use of powdered quicklime, dug in while still in a thoroughly caustic state. Potash salts also apparently have a slightly sterilising effect, especially kainit. No doubt in time some substance injurious to animals, such as the eelworms

THE ROSE GARDEN.

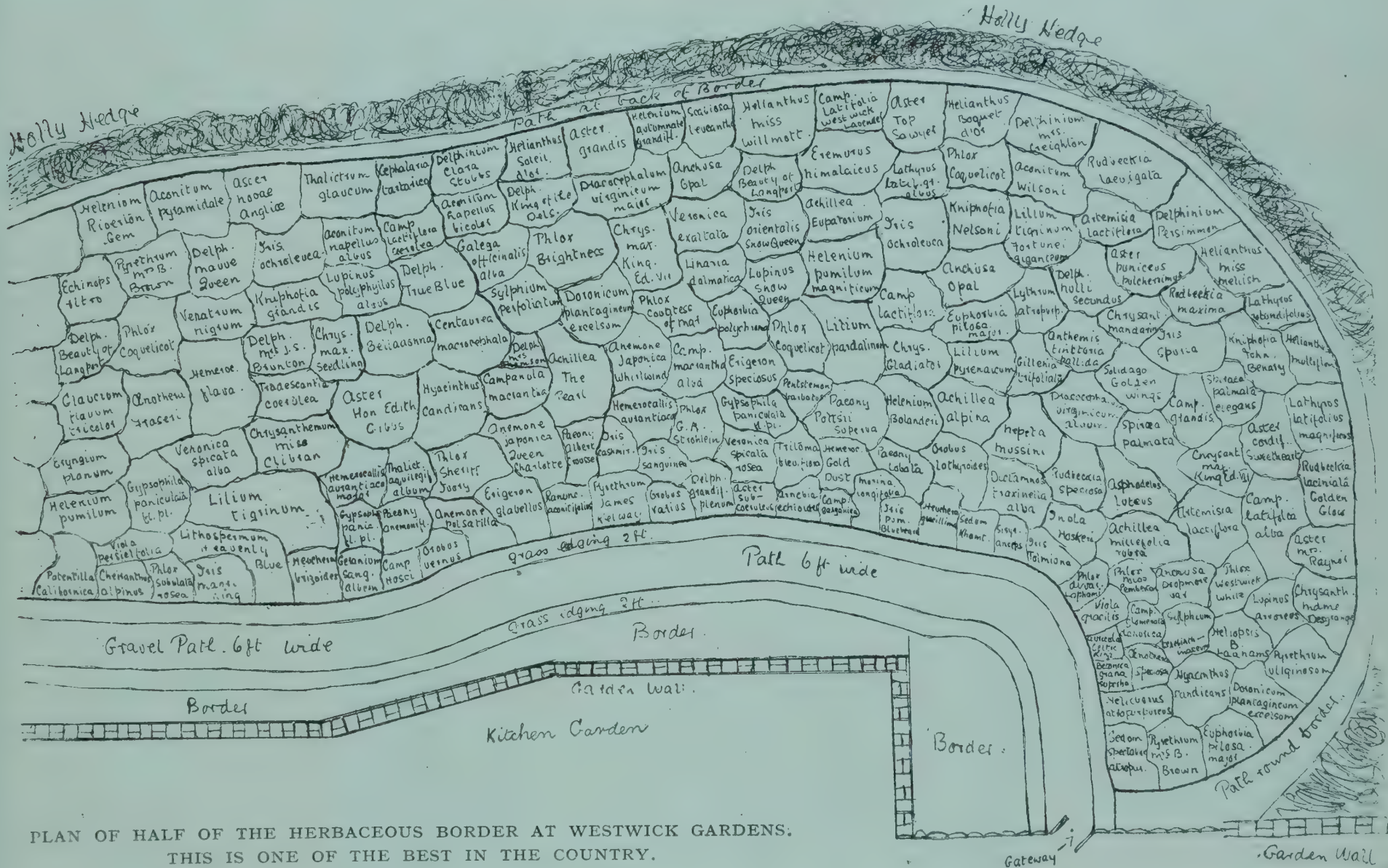
NOTES ON NEWER ROSES.

HYBRID TEAS FOR EXHIBITION.

(Continued from page 589.)

Mrs. George Shawyer (Lowe and Shawyer, 1911).—As seen exhibited by Messrs. Mount and others, this Rose promises well from the exhibition standpoint; but I have not grown it myself, although I hope to do so next year. It is a nice pointed flower, with petals of good substance, and its growth, I am told, is excellent. Another flesh-coloured flower, but with rather more contrast than most Roses of this colour have got.

Mrs. J. H. Welch (S. McGredy and Son, 1911).—This Rose obtained the gold medal of the National



scale it may be easily managed. Taking steam first, we may have a box or tank made with pipes perforated at intervals running along the bottom, and after putting the soil to be treated into it and covering over with a canvas cloth, we may drive steam from a boiler through it. If this method be adopted (as is done in several commercial growers' places now), pressure of 60lb. to 80lb. to the square inch is required. A modification of this method is in use in greenhouses, where a movable frame of perforated pipes is laid so as to cover half a bed, and soil from the other half is thrown over it and covered with canvas. The steam is then driven through and the temperature raised to the required degree. The frame can then be moved on, and so the whole house may be treated a piece at a time.

Baking the Soil.—Where steam-heat cannot be obtained, baking the soil may be resorted to;

and minute creatures which prey on bacteria, will be found sufficiently cheap to act as a soil steriliser, and with it will begin a new era for those whose business it is to gather the riches of the soil.

SCIENTIST.

BUDDLEIA OFFICINALIS.

Those who are responsible for keeping a greenhouse or conservatory furnished during the winter and spring months will find a batch of this Chinese Buddleia of great service, for it has a prolonged flowering period. It can be grown as a small bush in a 5-inch or 6-inch pot, and such a plant may be expected to bear up to a dozen inflorescences. The lilac-coloured flowers are borne in dense, terminal panicles from early December until February, and during the greater part of the time the plants are in first-rate condition. The lance-shaped leaves are greyish in colour.

W.

Rose Society at the same time and place as Edward Mawley, and perhaps has been somewhat overlooked in consequence. Of the two it has been far more reliable with me. It is an enormous flower—I think probably the largest Rose we have; but, at the same time, it has very few petals. I know of no Rose more deceptive in appearance in this respect, but it retains its shape in a marvellous fashion for several days, and then falls wide open into a flower as large as a small cheese plate. It is a Rose that I can strongly recommend, notwithstanding these characteristics. Its growth is vigorous; it produces its flowers freely and continuously (they must be disbudded), and they are held erect. At its best it is a most brilliant colour, very distinct, which one can only describe as a rose pink, but at times extraordinarily rich and brilliant, and quite unlike any other pink that I can call to mind. It has a slight perfume.

Mrs. Maynard Sinton (S. McGredy and Son, 1910).—Another Portadown Rose of merit. Its colour is pale flesh, almost white; flowers of large size, apt to come perhaps too big for elegance, with a very delicious perfume. Those grumblers who are always saying that Roses are losing their fragrance are not up to date, as many of the new Roses are the most fragrant that we have, and this is an excellent example. It is not a vigorous Rose, but a very healthy, robust grower, with good, sturdy shoots well able to support the large flowers that are produced at the end of each shoot. Very nearly mildew-proof. It was awarded the gold medal at Salisbury Show in 1909.

Mrs. Muir Mackean (S. McGredy and Son, 1912).—This Rose has been one of the successes of the year in my garden, and I can very strongly recommend it to exhibitors and, in fact, all Rose-lovers. Its flowers always come good and are most freely produced. At the time of writing (the second week in November) my plants are covered with buds. Its habit of growth is all that is desirable, and not too vigorous, as most of the red Hybrid Teas are apt to be. It is a self-coloured flower of deep carmine-crimson of quite perfect shape. When I have added that it is fragrant and practically mildew-proof, it will be seen that there is very little fault to be found with this latest production from these raisers. It can be best described as a darker and improved Mrs. A. E. Coxhead. It is distinctly a reliable Rose, in the sense that its flowers are always of good shape and up to exhibition standard. Its colour stands well in any weather, and in my opinion it is one of the best Roses of the year. It received a silver-gilt medal at Ulverston and a card of commendation at the autumn show in 1910; but many a Rose not half as good as this one has had the gold medal.

Mrs. Sam Ross (Hugh Dickson, 1912).—Another Belmont variety that I am inclined to think is the best Rose of a very strong set of four that this firm are sending out this year. There is a refinement about this Rose that must appeal to everyone. I fell in love with it at first sight at the Royal Botanic Show in 1911, and my first impressions were confirmed at Belmont, where some glorious rows of it were in full flower. The Roses had had two or three days' rest, so good flowers were numerous. It is a pale yellow, the colour shading from straw colour to almost a chamois tint; but this is a very inadequate description. The flowers are of large size, with plenty of good-shaped petals that in the open flower are reflexed at the edges. The growth is upright, and the flowers are held erect and sweetly perfumed. A Rose that will be a great favourite with the ladies. A gold medal Rose that the raisers think very highly of, and rightly so, too:

Southampⁿ.

HERBERT E. MOLYNEUX.

(To be continued.)

TREES AND SHRUBS.

THE BEST TREES AND SHRUBS FOR SMOKY TOWNS.

THOSE who are expected to keep gardens gay in smoky towns are severely handicapped, for they are prevented from planting many of our most ornamental plants, and even those subjects which give the most satisfactory results rarely attain the degree of excellence which we are apt to associate with them when growing under other and better conditions. Smoke is not always the worst enemy either, for in addition to smoke there are fumes from chemical and other works which render most phases of gardening impossible,

sparingly, for they have less chance of success than deciduous shrubs; the latter shed a considerable amount of dirt with their leaves in autumn. The leaves of evergreens, on the other hand, get dirtier as the winter progresses, and the pores become so choked with dirt that they cannot fulfil their proper functions. Those evergreens which are selected should be kinds with glossy rather than dull leaves, as dirt is more easily removed by rain from the former than from the latter. Evergreen conifers ought not to be planted in or near a smoky town, for they never thrive in an impure atmosphere.

The common Holly (*Ilex Aquifolium*), together with its glossy-leaved forms, is one of the best evergreens for smoky towns, and fairly good examples may be noted about the metropolis. For instance, a number of good bushes are to be seen in Camberwell Park, which is in a very thickly-populated neighbourhood, and the atmosphere is heavily charged with smoke. Then the Aucuba gives good results in many places. The common Ivy thrives under the most unsatisfactory conditions, while its numerous tree forms also give satisfaction. *Berberis stenophylla* thrives fairly well, but, with many other shrubs, it ought not to be allowed to stand too long, and as soon as signs of deterioration are noticed it should be replaced by a healthy young plant. *B. Aquifolium* and the common Box are other evergreen shrubs which may be planted.

Among deciduous trees and shrubs, several instances of different kinds flourishing under unsatisfactory conditions may be noted in the City of London. Almost within a stone's throw of the Bank one or two well-developed Mulberry trees are to be found. A specially fine one is to be seen in a small garden attached to the offices and rooms of the Honourable Company of Girdlers in Basinghall Street. This must be at least 30 feet or 35 feet high, with a considerable spread, and a good crop of fruit is ripened each year. *Catalpa bignonioides* is another tree which gives good results in the heart of London, while the Plane has become famous the world over by reason of its happy knack of resisting the enervating effects of the London atmosphere. The Horse Chestnut

is not a good tree for resisting smoke, and in the smokiest parts of Glasgow it is seen as a miserable example with poorly-developed leaves. The same remarks apply to the tree in Rotherham; but, curiously, the red-flowered Horse Chestnut grows as well as any tree can be expected to under such unsatisfactory atmospheric conditions. This is apparently a case of a hybrid tree being more vigorous and having a better constitution than its parents.

The Ash resists smoke fairly well, but the Beech does not. *Robinia Pseudacacia* is another tree to plant in smoky towns, while *Ulmus glabra* does moderately well. *Pyrus pinnatifida*, *P. rotundifolia* and others of the *Aria* group are good trees



THE SNOWY MESPILUS (*AMELANCHIER CANADENSIS*), EFFECTIVELY PLANTED WITH A BACKGROUND OF DARK EVERGREEN TREES.
(See page 603.)

and sorely try the skill and patience of the cultivator. As evidences of the worst conditions, reference may be made to such towns as Runcorn and Widnes, on opposite banks of the river Mersey, and to Sheffield and Rotherham. The latter town has been very hardly hit during the last ten years, for the opening of numerous large coke ovens, with their attendant fumes, has made tree-life almost impossible. Still, by perseverance some things can be found which will thrive, or at any rate live, under even these conditions; while when smoke only is the drawback, a considerable number give moderately good results.

When selecting trees and shrubs for smoky towns, those with evergreen leaves should be chosen

for smoky towns, as may be seen in the smokiest parts of Glasgow. Mr. Whitton, the very able Parks Superintendent of that city, appears to have been one of the first to discover the smoke-resisting capabilities of *P. pinnatifida*, and he uses it largely.

The various kinds of ornamental Crabs may all be used, *Pyrus floribunda*, *P. spectabilis* and *P. Ringo* being a good trio. Flowering Thorns also do fairly well. The common Lime is never very satisfactory in a smoke-laden atmosphere. At the best of times its leaves begin to fall early, and when the atmosphere is bad, many leaves fall during the first half of August. As a rule, trees which start into growth late have a greater chance of success than those which commence growth earlier in the year, while both trees and shrubs with glabrous or almost glabrous leaves usually thrive more satisfactorily than those whose leaves and branches are hairy.

Of deciduous shrubs, the Flowering Currants, Philadelphuses, Lilacs, *Viburnum Opulus* and its sterile variety, species of *Cytisus* and *Genista*, *Forsythias*, *Diervillas*, *Prunuses*, *Cotoneaster frigida*, *Deutzia crenata*, *Rhus typhina*, *Cornus alba Spæthii* and *variegata*, and *Lonicera tatarica* may be planted; but provision must be made for replanting occasionally, for, once they begin to show signs of weakening health, there is little chance of their recovery, no matter what method of culture is tried; therefore it is better to start again with vigorous young stock. All that can be done by working the ground thoroughly and providing good soil to help to establish the plants should be carried out, for a good start is more than half the battle. It is also a good plan to hose the shrubs and small trees overhead occasionally, in order to remove as much dirt as possible before it can become firmly fixed on the leaves and branches. W. D.

THE SNOWY MESPILUS.

(*AMELANCHIER CANADENSIS*.)

Few hardy shrubs are so well named as the Snowy Mespilus, which in late March or in the early days of April is so smothered with the profusion of its pure white flowers as to resemble a huge snowdrift in the distant effect. Flowering as it does so early in the year, it is advisable when planting to choose a position where its flowers will show to the best advantage, such as a background of the Evergreen Oak or Holly would provide. When planted in association with early-flowering shrubs, such as Almonds and double Cherries, the bright effects so produced are pleasing in the extreme.

The Snowy Mespilus belongs to the large Natural Order Rosaceæ, and has for its near relative the common Medlar (*Mespilus germanica*), but the flowers of *Amelanchier* are much smaller; indeed, it may be regarded as one of the daintiest and most profusely-flowered trees in cultivation. It is not in the least particular in regard to soil, and, in common with the Bird Cherry and Thorns, it revels in sandy woods. There can be no doubt at its hardiness, as it succeeds in all parts of the British Isles.

ROCK AND WATER GARDEN.

ROCK GARDENS IN THE MAKING.

(Continued from page 590.)

Overhanging Rocks.—In rock garden building there is perhaps no greater error than that of the overhanging rock, and the more so when arranged according to the mason's plan as opposed to that of the intelligent gardener. In the case of the first named, the rocks are usually cemented together in more or less stereotyped fashion, and at such times the error resolves itself into a source of danger, and for the following reasons: Cemented joints, according to the mason, ensure stability. I agree. They also ensure that the crevices between the rocks contain no soil; hence the impossibility of garnishing them with plant-life. I repeat again, and the fact should be kept well in mind, that every rock garden should be a home—a happy one, too—for alpine plants, and not what it might prove to be—the most fiendish of cemeteries

garden is the variety of aspects that a thoughtful arrangement of the rocks affords. For example, a miniature ravine in a cool and sheltered or, preferably, moist place would be ideal for colonising *Haberlea* or *Ramondia*, while these same plants would be perfectly happy in nearly vertical crevices where an amply-supplied larder was within their reach, and where in dry weather a perforated pipe at will emitted its refreshing draught. For such things north or north-western aspects are excellent, while for similar positions on the exposed sun-kissed sides there are hundreds of available plants. To the rock-builder the crevice or fissure in the rock should be regarded as among

The Greatest Assets, those purposely indulged-in phases that lend themselves so admirably to the planter, and which in due course should glitter with the choicest of gems. A most elementary study of the root systems of a few alpine will reveal how much the crevice or fissure is to the plant, or, to put it more accurately, how the plant through centuries has adapted itself to



SAXIFRAGA OPPOSITIFOLIA IN ITS NATIVE HAUNTS.

where it is the practice to buy the victims alive. I am strong upon the point—though I hope not too strong—because of its danger and because of the reckless way the thing is both recommended and done. Even as I write a book is open before me showing in detail the construction of this plant-starving arrangement, where every rock is a capstone to the one below it, a roof, a tile, shooting away the moisture and ensuring that powdery, inert dryness which renders plant-life an impossible thing. One is pleased, too, to note that in the main such useless projections find no place in the newly-executed rock garden at Wisley.

Large Rocks and Crevices.—In our dealings with the larger rock masses two items of the highest importance should be kept in view, viz., ensuring a great variety of aspects and the charging with soil and rocky *débris* each and every crevice as it is formed. One of the greatest charms of a rock

such environment. To a few plants—the woolly and tufted *Androsaces* and the most diminutive of the *Dianthi* and *Saxifrages*—such things border on the essential, chiefly because of their impatience of soil, soil dampness and richness, and which is increased because of the fog and humidity prevalent for weeks, it may be, in lowland gardens. Hence such positions constitute both a safe and a right place, while the root-fibres far away in the cool recesses of the rock know nothing of the vicissitudes prevailing without. In every thoughtfully-arranged rock garden there should exist a

Damp or Wet Corner or Bay, since all alpine are not of the crevice tribe. Not a few, indeed, of the plants from the high altitudes of the Himalaya are virtually bog plants, lovers of moist and rich soils, and while exquisite in their beauty and among the more easy to cultivate, our rock garden should contain a place for them. One has but to

recall many Primulas, Meconopsis, Dentarias, Trilliums and Cypripediums to get an idea of their wealth and variety, while even such as Anemone nemorosa robinsoniana and A. n. Allenii simply glory in such places. The only way to secure the damp and shade in which such things delight is to form a bay with rocks around and, by arranging for a depression in the soil—anything a few inches below the ordinary level—ensure a more uniform degree of moisture and coolness for the roots than would be otherwise possible. The high rocks around would at once afford shelter and shade, and may be utilised for Ramondias and not a few of the alpine Primulas of the viscosa and allied sections. To ensure the continued moisture of the colony, water should be laid on by the aid of obscured perforated pipes capable of being utilised at will. There should be an efficient drainage of potsherds, stones or brickbats, and these covered with turves set grass side downwards; then a bed of loam, leaf-mould and sand in nearly equal parts and 1 foot in thickness, or, if needs be, a small colony wholly of peat and leaf-mould. Another little bit might be of sphagnum moss and spongy peat for Sundews and Sarracenias, while the dampest of sandstone blocks could be studded with Pinguiculas, which ever claim attention. In this way the damp corner can easily be made one of the most interesting and enjoyable places the rock garden contains. E. H. JENKINS.

(To be continued.)

SAXIFRAGA OPPOSITIFOLIA IN ITS NATIVE HAUNTS.

THE characteristic feature of the highest rock-falls or stone slopes in both the Bernese Oberland and the Valais is the purple Saxifrage. When all but the dwarfest natives of the Higher Alps, such as Androsace glacialis and Ranunculus glacialis, have been left behind, and we come upon rugged desolations of weathered rocks—strewn over the mountain-side in the utmost confusion—then there greet us vast masses of the dark green foliage surmounted by the purplish crimson flowers of Saxifraga oppositifolia. Here in its native habitat it grows among the decomposing stone in great undulating cascades, mantling the boulders with its minute leaves in such immense profusion as to entirely obliterate them in many places, despite the rough and tumbled character of the situation.

From the natural conditions which prevail in the mountains, we may, I think, draw the conclusion that it would thrive best in the garden if we provide it with deep, gritty rubble into which it may root, copiously supplied with fresh water during its growing season. The illustration on page 603 is from a photograph taken on the Augstbord Pass, a little over nine thousand feet high.

REGINALD A. MALBY.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Chrysanthemum Mrs. W. T. Smith (Japanese).—A fine exhibition type of the purest white, with broad and crisp florets. To all-sufficient size is added a refined quality. From Mr. A. Smith, Roehampton.

Chrysanthemum Miss May Fox (Japanese).—Handsome flower-heads of large size and with long, drooping florets. The centre of the flower is greenish at first, but later becomes almost pure white. From Messrs. H. J. Jones, Limited, Lewisham, S.E.



CYPRIPEDIUM ELATIOR, A NEW AND BEAUTIFUL HYBRID.

Chrysanthemum Audrey (Single).—A very handsome yellow-flowered sort, the shade rich and telling. From the Manor House Nurseries, Cardiff.

Chrysanthemum Michael Harrison (Single).—A showy and attractive variety of crimson bronze and gold colouring. Under artificial light the effect would be brilliant in the extreme. From Mr. E. Harrison, East Grinstead, Sussex.

Carnation Snowstorm.—A pure white variety of great excellence florally, and with other good qualities also; indeed, we should not be far wrong in placing this near the topmost rung of Perfection's ladder. It is a fringed-petalled variety, highly and

symmetrically built, fragrant, and with long, self-supporting stems. The pot plants shown evidenced considerable freedom of growth. There was not a faulty calyx in the whole exhibit. From Mr. William Lawrenson, Yarm-on-Tees.

Carnation Mary Allwood.—Obviously a Britisher bred and born, and a flower of high excellence withal. The shapely-petalled flowers, their rounded outline, all evidence the home-raised article. The colour in this section is quite new. We call it rose salmon, as in this respect it is virtually a counterpart of the border variety Queen Mary. If a cropper—we have not yet seen the plant—there is a future in store for it.

Carnation Salmon Enchantress.—This is all that need be said of a sport having all the attributes of the most popular Perpetual-flowering Carnation ever raised. The name colour is good and descriptive, and—it is welcome. These were exhibited by Messrs. Allwood Brothers, Hayward's Heath.

Begonia Eclipse.—A semi-double variety of salmon rose colouring.

Begonia Scarlet Beauty.—An exceptionally vivid and striking bit of colour, quite new in the winter-flowering race.

Begonia Splendour.—Intense rich crimson, and, like the last, with moderately large flowers profusely borne. An acquisition by reason of its colour, which is most effective.

Begonia Lucy Clibran.—This is a larger-flowered variety, quite novel in colour, too, which is salmon, shading to buff or palest orange. Distinct and beautiful. The whole of these belong to the winter-flowering race, are most vigorous and free in habit, and profuse and abundant in their flowering. These were exhibited by Messrs. Clibran, Altrincham, Cheshire.

NEW ORCHIDS.

Cypripedium Elatior.—This is a most beautiful Cypripedium, derived from the intercrossing of C. leeanum and C. Baron Schröder. It is not large, but an improvement upon the latter parent in all its parts. The individual flower is almost round, the dorsal sepal being white and prettily marked with deep violet purple, while the pouch

and petals are brownish with a few spots near the base. First-class certificate. Exhibited by F. Menteith Ogilvie, Esq. The plant carried four well-developed flowers (see illustration.)

A first-class certificate was also granted to the charming Lælio-Cattleya Bella Orchid Denon Variety, shown by Mr. E. H. Davidson, Twyford.

Awards of merit were made to Lælio-Cattleya Scylla, exhibited by F. Menteith Ogilvie, Esq., and to Cypripedium Latonia, from Lieutenant-Colonel Sir George Holford, K.C.V.O.

The foregoing awards were made on November 19 at the meeting of the Royal Horticultural Society

GARDENING FOR BEGINNERS.

HOW TO PLANT FRUIT TREES.

THE cultivation of fruit trees has been practised for many generations, and no garden worthy of the name is considered complete without a few examples. The remarks

made below about planting applies with equal force to all fruit trees, although for an amateur with a small garden there is no fruit so profitable and useful as the Apple; but if he should happen to have a wall, cordon Pears may be grown, or a fan-trained Plum while for a wall with a north aspect the Morello Cherry is unequalled. In the illustration is shown a pyramid Apple tree, the Keswick Codlin variety, which is about six years old, and full of spurs and fruit-buds. Such a specimen can be purchased from 7s. 6d. to 10s. 6d., and, of course, smaller examples can be secured more cheaply; but for a grower who requires quick returns, the type of tree depicted on this page is the best to purchase.

It will be noticed that it possesses a mass of fibrous roots, which are very essential to its future welfare, and the white band just above the roots should be on a level with the surface of the soil when planting is completed. This operation can be done from the end of October until April, but it is advisable to have it finished by the end of January when possible.

First of all, the position should be chosen, and where several trees are to be planted it is best to measure the length of the plot, so as to have them in a straight line and equal distances apart. Each station may be marked with a stick or pole. The usual space between pyramids is 8 feet or 9 feet from tree to tree and 12 feet between the rows; but if only a single row is wanted, as is often the case with an amateur, the distance between the trees may be less. It should be borne in mind, however, that no advantage is gained by very close planting, for light and air are two of the most important factors in fruit culture.

Trenching not Essential.—Some advocate an elaborate system of trenching the ground twelve months or so beforehand, but I say emphatically that this is not necessary, because the Apple and its near relatives will thrive and produce good crops in ordinary garden soil. Under such conditions short, hard wood is made and plenty of fruit-spurs; while what is known as root-pruning is seldom required. When the trees are carrying a

large quantity of fruit, it will be found expedient to thin slightly, and mulch the base of the tree with partly-rotted manure.

to sink a little as time goes on, and deep planting must be avoided. Having got the hole ready and the tree therein, begin to cover the roots with

fine soil, and as the operation proceeds lift up the top fibrous roots and then add more soil; by this method they are brought near the surface. It will be necessary to lightly tread the soil around the tree to make it firm, while it may require a stake to hold it in position, especially in an exposed situation, till well established.

Regarding subsequent treatment, keep the ground frequently hoed and free from weeds, and should the summer prove exceptionally dry, a good watering occasionally will prove of considerable benefit. The subject of whether to prune or not to prune the first year is a controversial one, but, speaking from experience, I should certainly defer any pruning till the second season. S.

WINTER TREATMENT OF SWEET VIOLETS.

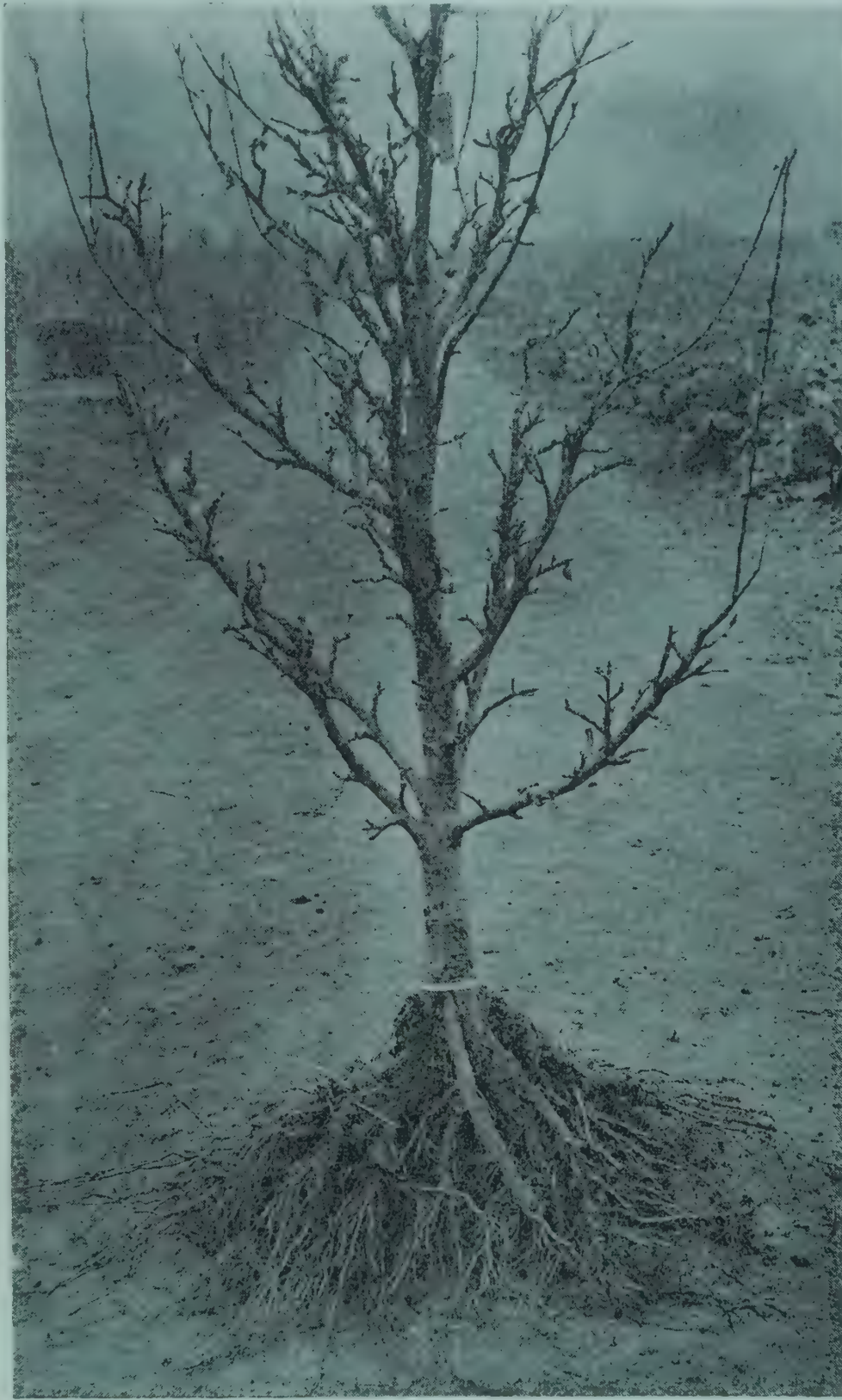
PLANTS growing in frames should be examined and all decaying leaves, old flowers and other extraneous matter removed. A little soot may be stirred into the surface of the beds. This will act as a slight stimulant, and also help to keep injurious insect pests at bay. In applying outside air to the plants, the weather conditions must be considered. On fine clear days advantage may be taken to remove the lights. Air and light are most essential in the healthy development of the plants. During showery weather the lights may be raised so as to admit air, providing the force from wind is not too strong to court disaster.

During spells of severe frost the sides of the frames should be banked up with long stable manure, and mats, Bracken, or straw placed over the lights.

For continuous winter flowering and general hardiness the variety Marie Louise is difficult to beat. Princess of Wales is a popular large-flowering single, producing abundance of flowers during

spring. Swanley White is an excellent double white variety.

Violets should be more largely grown in pots. A shelf in a cool greenhouse is an ideal place for the plants during winter. They present no cultural difficulties, and pots of Violet Marie Louise when full of flower are delightful. Failure may sometimes be traced to the use of a too heavy or rich soil. Ordinary good garden soil, with a little leaf-mould and soot added, forms an ideal rooting medium for Violets in pots. COLIN RUSE.



A PYRAMID APPLE TREE FURNISHED WITH FRUITING WOOD AND FIBROUS ROOTS. NOW IS THE TIME TO PLANT.

When planting, always make the hole large enough to spread out all the roots to their fullest extent, and before placing the tree in position break up the soil at the bottom of the hole with a fork, which will prevent the accumulation of water near the roots, particularly in low-lying districts. As a general rule it can be easily seen how deep the tree was planted in the nursery, and this fact can be safely taken as a guide when arranging trees in their new quarters, but this surface mark should be just above the soil, for the tree is sure

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Frames.—The cuttings of such plants as Calceolaria, Pentstemons and other summer-flowering plants that are none too hardy must be fully protected during spells of frosty weather. The frames should be uncovered whenever possible to admit light and a little air. During mild weather remove the lights entirely and stir the surface soil with a pointed stick, and any plants that show signs of getting leggy should have the points of the growths carefully removed. Violas ought not to be coddled, but need protection from heavy rains and snow. Should frost lift the cuttings out of the ground, these ought to be made firm again.

English and Spanish Irises.—If the planting of the bulbs has not already been done, the earlier these are placed in the ground the better. For cutting both sections are invaluable, and the cheap rate at which they may be obtained need not deter anyone from having them and planting freely, either in rows for cutting purposes or for the embellishment of the border. Nothing is gained by allowing the plants to remain on one site too long, and once in three years they will pay for lifting and replanting on a new site.

Lawns.—While the weather is open, any alterations necessary in the groundwork should be undertaken. It frequently happens that the edge near to a path or drive becomes patchy or worn. This may be removed and replaced with inner turf. New turf may then be used to fill the intervening space. Lawns that have become weak will be considerably benefited by having a good sprinkling of fine soil strewn over them, but defer sowing seed for another month or two. Avoid walking and other traffic over them in wet weather as much as possible, but frequent brushings and occasional rollings when not too wet will prove of immense benefit.

Plants Under Glass.

Perpetual-flowering Carnations.—There are several devices for staking that minimise the amount of time and labour taken up by the old method; but when the old-time system is followed with neat strands of twisted raffia, each growth should be separately secured; otherwise, when cutting the blooms, the growths dependent upon each other will need re-supporting. Carefully disbud the blooms as soon as the side flowers are large enough, and assist the plants with applications of soot-water and manures both in liquid and patent form. The time has arrived when a batch of cuttings may be inserted for next season's early flowering. Select vigorous young side growths about three inches or four inches long, pull them out cleanly and insert without any further making in sandy soil in a close pit, propagating-frame or a warm greenhouse where they may obtain plenty of light.

Poinsettias.—Late plants now developing their bracts and in comparatively small pots will greatly benefit by manurial assistance. The flowers of these will last much longer in a cut state if the ends of the stalks are sealed by being held in a gas flame or otherwise burnt to stop them bleeding.

Azalea indica.—A few plants of the variety Deutsche Perle will be generally useful if brought along and forced into flower in a warmer house. The plants must not be allowed to become dry at the roots, and a little bottom-heat, plenty of light and a humid atmosphere, with occasional syringings with chilled water, will considerably hasten their development.

The Hardy Fruit Garden.

Fruits in Store.—These should be frequently examined and none but the soundest of the late-keeping varieties retained. Handle as carefully as possible, and take advantage during inclement weather to attend to this important work.

Pruning Orchard Trees.—The pruning of large trees in orchards is frequently neglected. The work of pruning need not be delayed any longer. By far the best means of accomplishing this work is by the aid of a pair of long pruners, except for large wood, which must, of course, be removed by the aid of a saw. Spur back all the growths on the branches, leaving about two-thirds of the leading growths if there is room for extension.

Where the boughs are too thick, remove the weakest entirely, and if very bad, rather than be too severe, extend the operation over another season. To obtain good quality fruit, overcrowding must be guarded against. Collect all the prunings and burn at once.

Fruits Under Glass.

Tomatoes.—The plants that are fruiting under glass must be very carefully watered at this season, as growth is comparatively slow. Just a little sprinkling of rich fine soil on the surface of the pots will be found to stimulate root-action. Keep the atmosphere fairly dry and buoyant by ventilating whenever possible, also a circulation of heat in the pipes.

Cucumbers.—See that the beds, especially near to the hot-water pipes, do not become too dry. Keep the foliage from becoming congested by timely thinning and regulating. The foliage should be syringed once or twice daily, as the weather permits, with water warmed to the temperature of the house. As soon as the fruits attain sufficient size, have them cut and the stalks immersed in a little water.

The Kitchen Garden.

Cauliflowers.—Take every opportunity of keeping the young plants pricked out in cold frames, well aired, as with the time of year approaching they may perforce be covered up for an indefinite period. Make a sowing in heat of a quick-maturing variety, and as soon as large enough prick out into shallow boxes.

Lettuces.—The same remarks apply to this crop growing in frames. Keep as healthy as possible by removing any yellowing leaves, and fill up any gaps with young plants. Lettuces may be sown and allowed to grow fairly thickly in boxes, cutting in the same way as Mustard and Cress, when these will be found most useful for salads.

The Shrubberies.

Ornamental Brambles.—There are a few species of Rubus with very ornamental stems, and where space permits, a bed of them at this season is very attractive. One of the best we have is Rubus girdianus, of fairly recent introduction and one of the showiest. R. incisus and R. biflorus are two others with bright stems. The last year's growth may either be cut away now or, better, left till young growth commences from the base again in spring, as the farina is apt to become rubbed off if interfered with now.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

The Latest Flowers.—Cut any sprays of the latest Asters, such as Tradescanti, and Solidago Shortii still flowering. They will remain fit for vase furnishing if preserved in a cool place for a few weeks. Conclude the planting of any belated material at once, so that the borders need not be disturbed again till the turn of the year.

Snowdrops.—Under trees the tips of the growing points of Snowdrops are evident about this time, and it will improve the appearance of the masses, as well as be beneficial to the plants, to just cover the surfaces with some finely-sifted rich compost.

Narcissi.—If the ground is not in fit condition to stir with a hoe, it may be well scratched with a rake, which is of as much value culturally, the point being to aerate the soil and prevent the growth of low forms of vegetation on the surface, which takes place on certain soils at this time of year or when the atmosphere is more than usually damp. Beds of other bulbous plants should be treated in a similar manner.

Protecting.—This is as late as it is safe to leave applying protecting material to any plants which are not absolutely hardy. A simple and efficient protection is afforded by a layer, more or less thick, of flaky leaf-mould, or, where it can be had as a substitute, Cocoanut fibre refuse, both of which are clean and unobjectionable.

Roses.—These are afforded protection about this date. The material used is soil, about two spadefuls being heaped round the stem of each.

Manure of the kind usually employed causes here a soft growth in summer, and, apart from that, the beds, while it remains, are unsightly objects.

The Hardy Fruit Garden.

The Fruit-Store.—Up till now the fruit-room has been freely ventilated, so as to allow the odour from Apples to escape. Now that winter will soon set in, the windows are closed and means taken to keep out frost without having recourse to artificial heat to keep the temperature at as equal a point as possible. The less fruit is handled the better, but a sharp look-out must be kept for decayed fruits lest they contaminate others.

Pruning.—There is no special hurry to prune apart from its facilitating other work, and, once done, the ground about the trees can be cultivated. Usually trees are left too crowded, the shoots of the past season being cut back without considering that this method is sure to overcrowd the branches with useless spurs. It is imperative not only that these should be reduced to proper dimensions, each with a few buds only, but that they should be wide enough apart to allow of no overcrowding.

Canker.—Wherever this is seen it should be cut clean away into sound wood, and the parts removed and burned. Some varieties canker so badly in some soils that it is futile to give them room. Others on which canker fixes may be cured by spraying and by extra feeding on the surface. The stock of certain varieties seems to have a predisposition to canker.

The Vegetable Garden.

Ground-stirring.—Before winter sets in, the bare spaces between rows of Cabbages, Lettuces, Scotch Kale and Spinach may be surface-stirred with broad-pronged forks. This is particularly beneficial succeeding heavy rains, after the moisture has partially drained away.

Jerusalem Artichokes.—The crop is better lifted and the best of the tubers stored than left till spring. A new plantation of the medium-sized tubers may be made at once or delayed till spring. Deeply-worked, profusely-manured ground is essential, and the ground occupied by the current year's crop should be similarly treated before the succeeding crop is planted.

Mustard and Cress.—Where these are in request, small sowings should be made at intervals of every four or five days. The soil used should be rich, but need not be more than an inch deep, and saturated with water before sprinkling the seeds thickly over the surface. Cover with brown paper and put in a hot place, removing to a cool structure when the germination is complete. Use fresh soil for each crop, and cut the stems with a pair of scissors.

The Plant-Houses.

Bulbs.—Hyacinths and Tulips will force freely now if the precaution is taken to keep them always fairly moist in a temperature not exceeding 65°, and in the meantime in the dark in order to draw up the stems. The Tulips need not be uncovered till the flowers are well advanced, a few days' exposure bringing the colours all right. Narcissi must be brought on in a temperature 10° lower, but otherwise under similar treatment. It is essential for early forcing to grow only those varieties which experience shows are sure to succeed.

Zonal Pelargoniums.—Do not allow these to grow too much. It is a commendable practice to pinch the point of each shoot just beyond where new flower-stalks are springing, which keeps the plants dwarf and at the same time causes the flower-truss to expand to larger proportions than if the stopping were not done. A very little sulphate of ammonia dissolved in the water adds brilliance to the colour of the flowers. Plants full of bloom are valued for house decoration when massed, but they must be frequently changed, else the foliage yellows and the plants are spoiled for further use for the season.

Coverings.—During cold snaps coverings laid over the glass of pits are much to be preferred to extra firing for such things as Crotons, Dracanas and other tender plants, the foliage of which suffers in low temperatures. Coverings of every kind lose much of their value if used wet or damp, and means should be taken to dry them thoroughly every time after using. R. P. BROTHERSTON.
Tynningham, Prestonkirk, N.B.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

PLANTING MICHAELMAS DAISIES (*Ilex*).—Michaelmas Daisies may be planted at any time between November and the end of March. Take the clumps up and divide them into quite small portions, for better results are always obtained from small plants made up of a few branches rather than from large old plants with dense masses of stems.

SWEET PEAS (*Surrey*).—If the cow-manure is thoroughly rotted, it should be preferred to that from horses for your soil. Cultivate as deeply as you possibly can and work the natural manure into the second spit. Into the top mix basic slag at the rate of 5oz. to the square yard and kaintit at 4oz. to the same area, preferably before the end of December. The other things which you name will be better used as stimulants when the plants are in full progress.

BELLADONNA LILY NOT FLOWERING (*Col. F. W. B.*).—The only reason we can advance for *Amaryllis Belladonna* not flowering as usual is that the weather last spring was not very favourable to growth, and the weather later in the year was unfavourable to ripening. We have heard of other failures this year. Possibly your plants will flower quite well next autumn.

PÆONIES (*Rema*).—We do not recommend the watering of Pæonies during the winter season in a general way, though it is almost impossible to pay them too much attention during that period in respect to liquid manure. That is to say, it may be applied once every ten days during open weather, and in the case of light soils more particularly will leave its mark on the subsequent growth of spring. Then, again, in the spring of the year, and when such dry weather is experienced between April and the following season, copious waterings should be given to develop growth and flowers.

POLYGONUM BALDSCHUANICUM LEAVES DISEASED (*G. W.*).—The leaves of your *Polygonum* are injured by mildew, which has probably resulted from the recent cold and wet. If not attended to, the disease is likely to appear again next summer. You cannot do better than spray your plant at once with Bordeaux mixture, prepared as follows: Take 3lb. of copper sulphate and 2lb. of quicklime. Dissolve the copper sulphate in a little hot water in a wooden vessel; then in another vessel slake the lime. Pour the lime-water into the sulphate and make up to twenty-five gallons with clear water. Stir well and use. After the spraying, prune the branches back and burn the runings. Next spring, when the leaves are bursting, spray the plant twice, at intervals of a fortnight, with the same mixture. This will kill any fungus spores which may be present. The plant would flower better in a sunnier position.

EASILY-GROWN HERBACEOUS PLANTS (*A. A. L.*).—Without knowing for what purpose the plants are intended, it is not easy to give a satisfactory list, though the following are all good and of easy cultivation: *Adonis amurensis*, *Adonis vernalis*, *Anemone pulsatilla*, *Arnebia echioides*, *Aster bicoloratus*, *A. Amellus*, *A. alpinus albus*, *A. a. roseus*, *Anemone sylvestris*, *A. japonica alba*, *A. j. rosea*, *Aquilegia vulgaris*, *A. chrysantha*, *A. cærulea*, *Arabis alba flore pleno*, *Armeria plantaginea rosea*, *Aubrietia Dr. Mules*, *Moerheimi*, *A. Fire King*, *Campanula persicifolia alba*, *C. p. alba coronata*, *C. Hendersonii*, *C. carpatica versicolor*, *C. c. alba*, *Primula Sieboldi*, *P. bulleyana*, *P. pulverulenta*, *P. rosea*, *P. cashmiriana alba*, *Saxifraga thoniensis*, *S. cordifolia purpurea*, *Gypsophila paniculata*, *G. p. flore pleno*, *Geum Heldreichii*, *Helenium autumnale* and *Hemerocallis Dumortieri*. If these are not suitable, please write again, stating your requirements more definitely.

TREES AND SHRUBS.

SLIPPED YEW TURNING BROWN (*Ilex*).—We cannot suggest a reason for the upper part of your Yew tree turning brown, unless some injury has occurred to the branches below the point where the discoloured leaves begin. If you examine the plant, you may easily ascertain whether such is the case by removing a little of the bark with a sharp knife. If the bark appears fresh and full of

moisture, then the falling and browning of the leaves can only be due to some local condition, which may not be of a serious nature; but if the cut surface appears brownish and dry, there will be no possibility of saving the affected parts. It is not advisable to feed too liberally if the plant is growing in a border.

PRIVET HEDGE (*A. B. C.*).—A hedge of Oval-leaved Privet ought to answer satisfactorily in the position you describe. Both horses and cattle will eat Privet if allowed, but if there are no fields adjoining, we do not think that cattle passing along the road would cause injury. A Holly hedge would have the best appearance, but it would be more expensive and take a longer time to grow to the desired height and thickness. Privet has one failing, namely, it is more easily broken by boys or animals than such things as Thorn and Holly. You will, however, be able to decide whether a very strong hedge is necessary or not.

ADVICE ABOUT A CRAB APPLE TREE (*Ilex*).—The fruits sent for determination appear to be those of *Pyrus Malus coccinea*, although they may belong to one of the many varieties of Crab Apple, which show very small variations from each other and have no distinguishing names. From what is said about the condition of the trees, coupled with the condition of the roots sent for examination, we have no hesitation in saying that the plant is dying fast, and that there is no possible chance of its recovery. The sections of roots are dead and full of fungus, and we suspect that the same fungus is present in the trunk. The best plan would be to remove and burn the tree and its roots, and start again in a different place with a young plant.

COPPER BEECHES ATTACKED BY BEECH COCCUS (*Rev. R. W. C.-H.*).—Your Beech trees are evidently infested with the Beech coccus (*Cryptococcus fagi*), which is a very unsightly disease, although it is doubtful whether it does the amount of harm which is often credited to it. Beech trees which are sometimes said to have been killed by coccus have really been killed by fungus, the coccus being a secondary consideration. However, it is a good plan to clean the trees, and as you apparently have not many specimens, you had better have them scrubbed with a stiff scrubbing-brush with a paraffin wash. The wash may be made by taking 2lb. of soft soap and dissolving it in two gallons of boiling water. Into this pour a gallon of paraffin, stir with the soapy water until a creamy liquid is formed; then make up to twenty gallons with warm water. While the scrubbing is in progress, keep the wash well stirred. For spraying purposes, 2lb. of caustic soda, 98 per cent., may be added. The mixture is very penetrating, and it should only be used through a spraying-machine on a calm day, for if any of the liquid comes in contact with the skin of hands or face, it has a drying or burning effect on it. The paraffin wash causes no ill-effects.

ROSE GARDEN.

SOIL FOR ROSE-GROWING (*Quizzy*).—The sample of soil is fairly good. It will need to be enriched with some good manure—preferably cow or pig—and if you can obtain some top soil from a pasture, we should advise you to add some of this also. Try to provide a depth of fully 2 feet of good soil, and break up the chalk subsoil; then we think you would be able to grow good Roses.

ROSES FOR PARTIAL SHADE (*W. B. P.*).—You must avoid planting the very double kinds in such a position. A very good dozen would be *Betty, *La Tosca, Pharisæer, Melanie Soupert, *Laurent Carle, *Gustave Regis, Grace Molyneux, Mme. Antoine Mari, *General Macarthur, *Frau Karl Druschki, Lady Hillingdon and Mme. Hoste. Those marked with an asterisk would make good standards.

PRUNING RAMBLER ROSES (*F. B.*).—You are quite right. The growths you have marked are called laterals. You must not, however, prune them now. March is the time to do this. If the plants are too large for their position, cut out one or two of the oldest main growths, and then open out the plants in a fan-like manner if you can. The Michaelmas Daisies should be divided each year and replanted; then we think you would have very little mildew.

PRUNING A NEGLECTED ROSE (*W. T. J.*).—Rose Margaret Dickson is often used as a pillar plant by placing a 6-foot pole to it and tying up the growths. If you care to do this, you should cut one of the long growths down low so as to encourage basal growths, and this could be done now. Another method would be to cut away all growths except one of the main stems, and treat the Rose as a standard. The small growths at the top, if cut back hard, would break out stronger next year and would soon make a nice head. Of course, all growths coming from the main stem should be suppressed.

ROSE FOLIAGE AND RED RUST (*R. H. G.*).—The foliage is badly attacked by orange fungus, which has been particularly rife this year. We do not anticipate any serious injury to the plants beyond premature defoliating them, and we cannot advise you to do anything now save collecting fallen leaves and burning them. Next season spray early with potassium sulphide at the rate of 1oz. to 10 gallons of water, and as the leaves become harder, decrease the water to 5 gallons to 1oz. of the sulphide. Removing 1 inch or 2 inches of the top soil in winter and burning it would destroy many of the winter spores, although contagion is possible again in spring from the hedge Roses, which are frequently badly affected.

THE BEST NEW ROSES OF 1911 (*Trent Bridge*).—We can quite understand your desire to obtain only the best novelties that are really advances upon existing kinds.

We have proved the following to be very good: Countess of Shaftesbury, Leslie Holland, Mrs. Charles E. Allen, Edward Mawley, Mrs. Amy Hammond, Florence H. Veitch, Recuerdo A. Peluffo, Alexander Hill Gray, Carrie, Duchess of Westminster, Ferniehurst, Lady Greenall, Mabel Drew, Melody, Mrs. Cornwallis-West, President Vignet, Mme. L. Baltet, Germaine Chenanet, Mme. Jules Bouche, Mrs. E. Powell, Mrs. George Shawyer, Nathalie Bottner, Mayflower and May Miller.

THE GREENHOUSE.

TREE TOMATO (*A. J. V.*).—The Tree Tomato (*Cyphomandra betacea*) is a small tree, reaching a height of about twelve feet. It will flourish in an ordinary greenhouse temperature in a mixture of loam and leaf-mould. The greenish flowers are produced in long, pendulous racemes, the buds being purple. The fruit when ripe is red and egg-shaped, and is quite edible, resembling a Tomato in flavour. It is a native of Southern Brazil.

MALMAISON CARNATIONS (*W. R. G.*).—The dead leaf-tips may have resulted from check, too much or too little water—the former most probably. The leaves, however, bear evidences of the attack of red spider, and many of the pests are present on the specimen sent. If permitted to increase, this pest will ruin the plants. You should, therefore, either dip or syringe the plants in a solution made of an insecticide and water, a wineglassful to two gallons. Spraying with soot-water is also good, and salt and water is an excellent deterrent if used in moderation. It is, however, fatal to the plants if rashly used. A teacupful only of the salt to three gallons of rain-water would be strong enough, and the plants should be laid on their sides on a mat while the spraying is being done. In employing these things it is the under sides of the leaves where the pest mostly congregates, and which require to be reached if the application is to be of any service. The soil you have been using is too light; employ loam of a somewhat heavier texture and pot very firmly. The Gloire de Lorraine Begonias have been grown in too high a temperature, and have also suffered from the attacks of thrips, usually the result of too dry a temperature. We detect no fungus on the other leaf sent, and if there is evidence of disease, cut the affected leaves and burn them.

CACTI (*M. R.*).—You give us no idea of the accommodation available for Cacti, whether you intend to devote a greenhouse or part of a greenhouse to their culture, or purpose growing them in a sunny window. The Phyllocacti are among the showiest and most free-flowering of all Cacti, and a fair proportion of them must be included in any selection. They flower during the summer months. The raisers of these as a rule give their own names, so that, in ordering from a specialist in succulents, the better plan will be to leave the selection to him, stipulating for distinct varieties. On no account must the variety German Empress be omitted, as the flowers, though smaller than the others, are of a delightful shade of pink, and are borne in the greatest profusion even on small plants. The Rat's-tail Cactus (*Cereus flagelliformis*) is very pretty when suspended, and the long, pendulous shoots are in summer studded with pretty rose-coloured blossoms. Practically the whole of these flower during the summer; but if you have a structure where a winter temperature of 50° to 65° is maintained, you will, during the dull months of the year, be able to enjoy the bright-coloured blossoms of the different varieties of *Epiphyllum truncatum*. All the Cacti above alluded to should be so situated that the temperature of the structure in which they are grown does not fall below 45° on cold winter nights, and at that period they will need but little water. A great deal more, however, may be given during the growing season. A compost made up chiefly of loam, with a mixture of leaf-mould, silver sand and broken brick rubble, will suit most Cacti well.

KITCHEN GARDEN.

INJURY TO CELERY (*Anxious*).—The Celery leaves are attacked by a fungus, and nothing is likely to effectively check the pest now it has gained a hold. Picking off the diseased leaves and spraying the remainder with Bordeaux mixture may do some good; but another year see that you get fresh seeds, grow the plants as far as possible away from the position occupied at present, and spray with Bordeaux mixture at intervals if the first sign of the disease manifests itself. Do not throw the diseased plants or refuse on the rubbish heap. Burn them.

TOMATO PLANTS GONE WRONG (*R. G.*).—Your plants are evidently well grown and well fruited. On first examining them we suspected the cause to be an attack of fungi, but on closer inspection we are satisfied that it is not, but is the result of some cultural defect, the most likely being the too rich and too wet condition of the soil and the too humid, cold and close atmosphere. Before the border has any more water given to it, let it become fairly dry (but not dry enough to cause the plants to flag), then take off the surface soil to the depth of a couple of inches and replace with a top-dressing of loam to which have been added three pints of lime and one pint of bone-meal to the barrow-load of loam. In applying, press firmly down, and give a good watering with clear water. Ventilate freely day and night, and apply enough heat (from the hot-water pipes) to create a gentle warmth and always keep a buoyant circulation of the air. Destroy all the affected fruits and paint the partly-affected stems with sulphur and water. Those badly affected must be cut off and new stem growth encouraged by careful culture. The plants have not been scorched.

FRUIT GARDEN.

APPLE SUCKERS (*Rajus*).—The only successful way to destroy such suckers is to carefully expose the roots from which they spring by clearing away the soil, and then cut off the suckers close to the roots.

FRUIT TREES IN CLAY AND CHALK (*H. M. T.*).—Fruit trees like chalk. If your soil is trenched and a liberal quantity of well-rotted farmyard manure applied at the time of trenching, there is no reason why Apples, Pears and Plums should not succeed fairly well in such a soil, so long as it is well drained.

ESPALIER AND CORDON FRUIT TREES (*Beauty of Bath*).—We think that Pears would do very well on the west side of your espalier wire fence, and Gooseberries as you suggest on the east side. You cannot grow fruit trees on both sides of an open wire fence. The fence should be 6 feet high, and we think that fan-shaped Pear trees would cover it better for you in time and be more profitable than the cordon-trained trees. As regards the Gooseberries for the eastern aspect, we recommend double cordon-trained trees.

APPLE TREES CANKERED (*Ilex*).—From what you say about your old Apple trees we imagine that they are not a source of profit, for what fruits are produced are poor in quality. Therefore we have no hesitation in advising you to destroy them and start again with young stock. Old fruit trees often have a picturesque appearance, but it is a mistake to let sentiment step in when such trees occupy positions in gardens and orchards where the room they occupy might be given over to young trees which would bear well-developed fruit. Such trees, which are full of disease, are also a source of injury to others, for fungus spores spread from the cankered areas to young trees, and they in time become useless.

MISCELLANEOUS.

WATSONIAS (*Alice Knox*).—You have done what is right in drying the plants off, provided it was not brought about suddenly and has not been carried to extremes. These plants do not require to be dried off like Tulips, for example, seeing that under cultivation some roots remain more or less active.

YARROW ON LAWN (*C. H. S.*).—The best way to get rid of the Yarrow (*Achillea Millefolium*), from your lawn is to pull it out. This is rather tedious work; but you say that you have not much of it. Some people sow Yarrow with Grass on lawns, as it stands the hot weather well and keeps green very much longer than grass. It is certainly a less noxious weed than the Plantain.

CHIVES AND ALMOND TREES (*W. E. T.*).—Chives are chiefly useful as substitutes for Onions when these are scarce. It is a British plant, quite hardy, and will succeed in any ordinary garden soil. Once planted, it is well not to disturb it for at least three or four years. After this time the clumps should be divided or replanted in fresh soil. They may be replanted any time between the end of October and the end of March; but towards the end of February is the best time. Your Almond trees must be growing too strong, and while this is the case the trees will neither flower nor bear fruit freely. The best way of treating them will be to root-prune the trees, cutting back all the strongest of the roots by one-third their length. The easiest way of doing this will be by lifting the trees out of the ground and replanting again immediately the root-pruning has been done.

SAXIFRAGES AND JAMES ATKINS OF PAINSWICK (*R. B. C.*).—The late James Atkins of Painswick lived for many years at Rose Cottage, where his unrivalled collection of Saxifrages and other plants attracted specialists from all parts. Entering the village from the direction of Cheltenham, the house was a little removed from the main road on the right hand. The collection of plants in its entirety, we believe, came into the hands of Messrs. Paul and Son twenty-five or more years ago. The early hardy Cyclamen, *C. Coum*, *C. ibericum* and *C. Atkinsi*, were a great feature of the garden, though the choicest gem of all—and virtually a comparative weed, seeing that it travelled far and wide—was *Omphalodes Luciliæ*. To such an extent was this the fact that in 1883 or 1884 the writer of the note in question was the recipient of a big clump of it, and many more like it could have been lifted at the time. Unfortunately, the plant resented interference in autumn, and equally so, probably, the often fatal error of planting such things intact in big clumps, and, without any attempt at re-rooting, pined and died a few months later. The memory of the plants in the Painswick gardens, however, will never fade.

FUNGUS ON LAWNS (*Cove*).—We presume that the fungus you refer to grows in a circle, thereby causing bare areas in your lawn. These circles are usually called fairy rings, and are often caused by a species of *Agaricus*. The harm is usually done before any of the Toadstools are noticed, for the white mycelium of the fungus is at work below ground long before the visible fruiting stage appears. Still, some good may be done by collecting and burning the Toadstools to check the spread of spores. To kill the mycelium the ground should be thoroughly soaked to a depth of 9 inches or 12 inches with a solution of sulphate of iron. This may be prepared by dissolving 8lb. of sulphate of iron in thirty gallons of water and applying when the ground is damp. It must be remembered, however, that it is no use applying the mixture unless the ground is thoroughly soaked. A week after using the sulphate of iron give the patches a dressing of lime, dig them over, and sow grass seed or fill up with new turf. Another way of dealing with the pest is to remove the soil to a depth of 12 inches and fill up with new soil. The old soil may be spread on cultivated land, but not on grass.

Whether using the sulphate of iron or removing the soil, take care to carry the work a few inches beyond the outer line of the circle, for the mycelium always spreads in an outward direction. The present is a good time for the work.

NAMES OF FRUIT.—*E. M. A.*—1, Marie Guise, should be picked early in October and be ripe in December; 2, Winter Nelis, should be picked early in October and be ready for use in December and January.

NAMES OF PLANTS.—*S. P., Denbighshire.*—1, *Begonia Dregei*; 2, *B. Ferdinand de Lesseps*; 3, *B. carminata*; 4, *B. Luzerna*; 5, *B. fuchsoides*; 6, *Nephrodium molle*; 7, *Polypodium membranacea*; 8, *Adiantum cuneatum* *Pacotii*; 9, *A. pedatum*; 10, *Asplenium bulbiferum* variety; 11, *Pteris longifolia* *Mariesii*; 12, *Cyperus alternifolius*.—*L. W., Hoo.*—*Phytolacca decandra* (Virginian Pokeweed).—*L. Barron.*—*Agathæa coelestis*.

SOCIETIES.

NORFOLK AND NORWICH CHRYSANTHEMUM SHOW.

HELD in St. Andrew's Hall, Norwich, on November 21, 22 and 23, this fixture proved to be a great success. There seemed to be no tendency (in spite of the critical remarks of some writers) to dispense with the large Japanese blooms. Here they were quite as good as ever, and some even better. Incurves and Pompons seem to be losing favour with growers; but, on the other hand, singles and naturally-grown Japanese flowers are gaining popularity. Pot plants were a good feature, and the artistic arrangement of the circular groups was very marked, as also were the baskets, vases and table decorations. Other flowers were in profusion. Fruit was a very strong section, more especially the Apples. The wet season had been evidently beneficial to the vegetables, which were in larger numbers and much better in quality than last season. Mr. Cozens-Hardy achieved a marked success with Potatoes, winning in strong competition six firsts with only eight entries.

The seedsmen of the district and elsewhere offered prizes, the classes for which were keenly contested. The trade growers contributed largely to the beauty of the display. Foremost came the firm of Messrs. Daniels Brothers, Limited, Norwich, who did themselves great credit with a fine and educational exhibit. Hobbies, Limited, Dereham, had a large show of Chrysanthemums, Roses and Dahlias, and visitors were delighted with the arrangement. Messrs. Sutton and Sons, Reading, had a characteristic "Sutton" display of vegetables and such-like. Messrs. Wells, Merstham, had a bold bank of Chrysanthemums consisting of up-to-date kinds.

In dealing briefly with the winners, we mention first the class for a circular group of Chrysanthemums and foliage plants. Here Mr. T. Notley, gardener to E. G. Buxton, Esq., Catton Hall, won for the third year in succession, and secures the cup as his own property. For forty-eight Japanese, Sir Carl Meyer was first; but the best bloom in the show was in the second prize lot from Sir S. Neumann, the variety being *F. S. Vallis*. For thirty-six blooms, T. A. Rising, Esq., was first; while for twelve distinct Sir G. Lacon took the premier award. For six blooms, one variety, white, Sir S. Neumann, with fine blooms of W. Turner, and also for six blooms of any other colour, with *F. S. Vallis*, took both firsts. The best incurves came from Mr. W. Chettleburgh, gardener to Colonel Rous, Worstead, his blooms of Mrs. H. J. Hygate being very fine. He also staged a beautiful bright yellow sport from this same variety which he calls The Colonel. Mr. H. Cockerell, gardener to G. E. White, Esq., Eaton, won the premier prize for naturally-grown flowers, also for singles. Mr. W. Hilson, gardener to Sir F. Adair, had the best collection of cut exotic flowers. Carnations were exceedingly well shown by the veteran gardener at Gunton Park, Mr. W. Allan. He can usually hold his own with this flower, as well as being a great fruit-grower. The pot plants of *Begonia Gloire de Lorraine* from Dr. Osburne, Catton, were marvels of excellence. Mr. F. Endersby, gardener to J. H. Gurney, Esq., Keswick, had the best plants of Cyclamen, and his Violets, too, were very fine.

Mr. T. Simpson, gardener to the Earl of Stradbroke, Henham Hall, distinguished himself in the Apple classes, winning firsts for a collection of dessert and for a collection of kitchen Apples. The best single dish of Cox's Orange Pippin came from Mr. W. Allan; while for a single dish, any other variety, the lot of Allingtons staged by Mr. George Davison, gardener to Colonel Petre, Westwick, were models of excellence. Mr. Davison excelled in all the Pear classes. His Doyenné du Comice did one good to gaze upon. Grapes were not quite so good as we have seen them. The best three bunches of Alicante came from Mr. E. Greene, gardener to Edmund Reeve, Esq., Catton Grange. Mr. W. Allan's bunch of Gros Colmar was easily first for a single bunch, and he also won first for a white bunch with a grand example of Muscat of Alexandria.

In vegetables good collections were put up by Miss Langworthy, the Hon. A. E. Fellowes and Mr. W. Chettleburgh. Mr. A. Woodhouse, gardener to Sir H. C. Engleman, Saffron Walden, had a grand lot of Carnations, such as one does not often see at Norwich. Messrs. F. Smith and Co., Woodbridge, were well represented by a lot of fine vegetables. Besides those mentioned, there were a few others who had smaller collections.

The energetic hon. secretary, Mr. C. E. Pilling, endeavoured to see everything well placed, and is to be congratulated upon the smooth way in which his plans worked.

NATIONAL CHRYSANTHEMUM SOCIETY.

AN exhibition of Chrysanthemums was held under the auspices of the above society at Essex Hall, Essex Street Strand, London, W.C., on Wednesday, November 20, in consequence of the earliness of the great autumn show held at the Crystal Palace on October 29, 30 and 31 last. The present show was primarily to give growers of incurved Chrysanthemums an opportunity of exhibiting their flowers at their best, and also that market-growers might make a good representation of their wares to Londoners and growers generally. The meeting was a distinct success. The larger hall was filled to its utmost capacity, and the show was well patronised by the public until the closing hour of 9.30 p.m.

The groups of cut flowers from the trade were, as usual, an outstanding feature of this society's show. Mr. Norman Davis, Framfield, Sussex, again excelled, winning a large gold medal for Chrysanthemums of all types of the flower, represented by fresh, highly-coloured specimens of splendid quality. Here were to be seen grand examples of Japanese, Lady Talbot, Mrs. Gilbert Drabble, December Gold, William Turner, Frank Payne, E. G. Mocatta, Edith Jamieson and its sport A. M. Falkner. Singles were splendid, notably Mensa, the new Royalty, Agnes Pole Star and Pictor. Incurved sorts were seen in Maritana and Durbar; and Pompons by White Baby, Baby, Snowdrop and others. The new white Anemone flowered Godfrey's Perfection was also exhibited.

A gold medal was awarded to Mr. Philip Ladds, Swanley Junction, for a charming display of Chrysanthemums set up in bold groups of cut flowers on large stands. The flowers were grown as for market, and contained many excellent specimens of such Japanese sorts as Mme. Radaelli and its yellow sport, Mme. G. Rivol, December Gold, W. Turner, Framfield Pink and Freda Bedford. There were also good singles, notably the new Bronze Beauty, the yellow Ethel Mortimer and Mensa. The grouping left nothing to be desired.

Messrs. Cragg, Harrison and Cragg, Heston, Hounslow Middlesex, staged a remarkably fine group of market-grown Chrysanthemums, arranged attractively in vases. Standard sorts and novelties were freely displayed, and the exhibit well merited the gold medal awarded to it. Some of the better Japanese sorts were Freda Bedford, Mr. F. McNiece, D. Ingamells, F. Cooper, Ethel Thorp, Foxhunter, Mary Godfrey, Mrs. Buckbee, December Gold (superb) and Miss Olive Dumsday. Singles were remarkably handsome, notably Jessica, Mensa, Portia, Mrs. W. G. Patching, Lemon Queen, Edith Pagram, Pin Beauty, Mrs. W. Garner, Mis. W. Wells and several new sorts.

A small gold medal was awarded to Messrs. W. Wells and Co., Limited, Merstham, Surrey, for a group of cut flowers set up on the front of the platform. Bold masses of the new white Japanese, Queen Mary, were the centre of attraction, and examples of F. Jolliffe, H. Luxford, William Turner and Mrs. G. Drabble were also conspicuous.

Messrs. Godfrey and Son, Exmouth, had a small exhibit of their new Anemone-flowered Chrysanthemum Godfrey's Perfection, which is a flower of fine decorative quality.

In the competitive displays the most important class was that for thirty-six incurved blooms, distinct, in competition for the Holmes' Memorial Challenge Cup. There were three exhibitors, and the veteran grower Mr. G. Hunt, gardener to Pantia Ralli, Esq., Ashstead Park, Epsom, was an easy first, showing large, well-finished specimens in good order and condition. The more conspicuous examples were Clara Wells, Souv. of William Clibran, H. Hearn, Eva Smith, G. H. Evans, Miss M. Lyne, W. Pascoe, Duchess of Fife, Doris Raynor, Ethel Thorp, Colonel Kekewich, Embury, Putevine, Mrs. W. H. Jones, The Egyptian, Amb Beauty (superb), Miss N. Threlfall, Le Peyron, Marjorie Shield, Mrs. G. Denyer, Mme. Vrembley and May Phillip. The second prize was awarded to Mr. J. Broom, gardener to Miss Longworthy, Gays House, Holyport, with small and less even blooms; and third prize was secured by Mr. J. Simon, gardener to Mr. W. W. Mann, Ravenwood, Bexley Heath, with large, rather rough specimens.

For a vase of singles, from which the trade were excluded, Mr. Loo Thomson, Ailsa Craig, Formby, Liverpool, was placed first out of six competitors with a grand lot of ideal flowers. The second prize was secured by Mr. Lawrence, Shoreham, Kent, also with a splendid collection of blooms.

Great interest centred around the competition for the best new single Chrysanthemum exhibited before the floral committee on this occasion. The novelty must not be a sport, and must not be in commerce. In the end Messrs. Cragg, Harrison and Cragg's Portia, a large flowered single, was adjudged first, and well merited the distinction.

NEW VARIETIES.

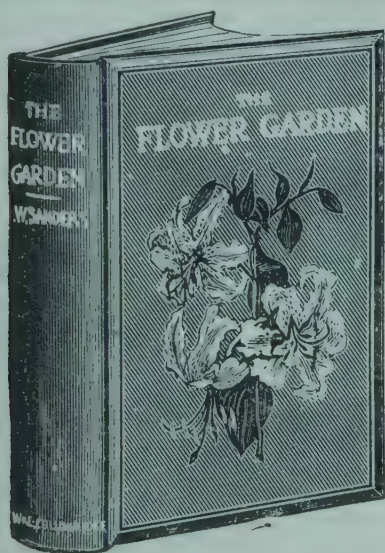
Thirty-six new Chrysanthemums were submitted for adjudication by the floral committee, and apparently high standard was observed in making awards in most cases. The following varieties were recognised:

FIRST-CLASS CERTIFICATES.

Prince of Wales.—This is a large, full, exhibiting Japanese bloom of considerable substance, having broad florets of good length that recurve in fairly even fashion. Colour, deep crimson, with bronze reverse. Shown by Mr. Norman Davis, Framfield, Sussex.

Royalty.—A dainty, free-flowering single variety rather less than three inches in diameter. Florets of good breadth, neatly disposed. Colour, bright rich crimson with yellow disc. This flower has two rows of florets from Mr. N. Davis.

Gifts of Value to Gardening Friends



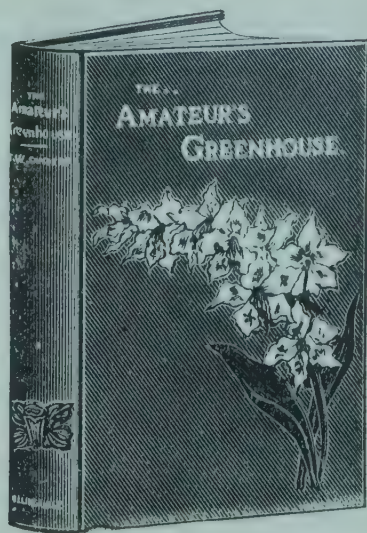
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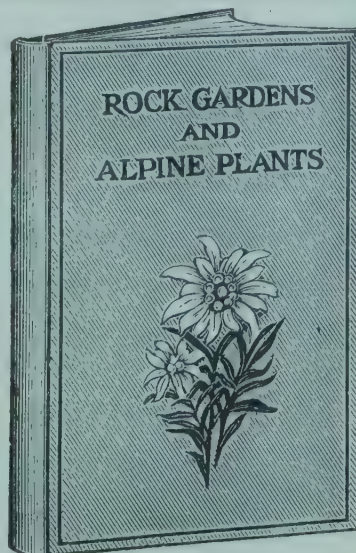
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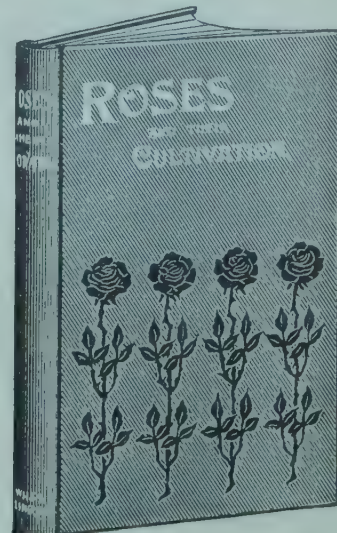
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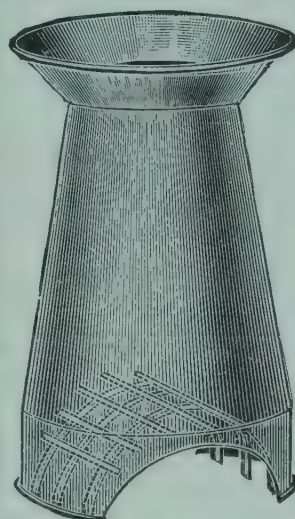
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Crimson Queen.—A distinctly-coloured single of medium size and fair form. Florets medium to broad, fairly regularly arranged. Colour, wine-coloured crimson, with yellow disc. From Messrs. Cragg, Harrison and Cragg.

Mrs. Roger Gaskell.—Another attractive single of good form and large size. Florets of medium breadth. Colour, pink, with white zone.

Several varieties the committee wished to see again.

CONFERENCE AND LECTURE.

In connection with the exhibition the society organised a very successful conference, on which occasion Dr. Russell of Rothamsted lectured on "Soil Sterilisation." The lower hall was crowded to its utmost capacity, and several of the audience had to stand throughout the whole of the lecture. Mr. T. Bevan occupied the chair. The lecture was enhanced by a capital series of slides thrown on the screen in illustration of the points the lecturer desired to emphasise. Through the kindness of Messrs. Cragg, Harrison and Cragg of Heston, Hounslow, five plants each of several varieties of Chrysanthemums were sent to Dr. Russell for experimental purposes, and as these represented several of the better-known sorts, a lively interest was created in experiments with the whole of them. So soon as the Chrysanthemum slides were exhausted, others representing Tomatoes and Cucumbers were utilised to illustrate what had been done with these subjects in regard to soil sterilisation. Dr. Russell said he had been experimenting on Chrysanthemums for the past eight months. He had conducted his experiments on a number of plants, with results sufficiently definite to justify him in going on with them. The experiments will be continued next spring, and some results obtained may be modified by another season's work. He laid great stress on the fact that partial sterilisation was what should be done, and not absolute sterilisation. Some of the organisms of the soil are good for the plants, and others are bad. We kill off some of these organisms or bacteria to make the soil more fertile. The lecturer threw on the screen a picture showing two Chrysanthemum plants treated to identically the same compost. In one case, however, the soil had been heated to the degree of steam, and in the other was untreated. The result demonstrated that the partial sterilisation of the compost by heating had made it more fertile, as the growth was much more robust and more satisfactory in every particular. Whatever properties there are in the soil, by treating it with chemicals or heat the properties are increased. The bacteria in the partially-sterilised soil is more active. Leaves taken from three distinct Chrysanthemum plants, in which the soil had been treated and untreated, showed very plainly in the former case more vigorous growth, deeper colour, and the plants had stouter stems. If you try to strike cuttings in partially-sterilised soil, the rooting process takes longer; it seems to retard rooting. It was satisfactory to note, however, that once the young plants get out of this retarded condition, they go ahead. This experiment proved that when partially-sterilised soil is utilised, the grower begins with a delay in root-action, but before long the plants make better roots and better plants. The lecturer spoke of soil treated with tolual, showing excellent results. He said the earlier retarded growth on sterilised soil does not delay the period of flowering. Better blooms were obtained from plants grown with sterilised soil than from unsterilised soil. Ocular demonstration was given of this fact, and was most convincing, the difference being very marked. Dr. Russell, in speaking of the value of partially-sterilised soil for Tomatoes, said the plants flower earlier, there were more flowers, and, consequently, more fruits. Three plants of Tomatoes were shown, two treated and one untreated. The plants grown in soil that was half heated had a good number of fibrous roots; that heated to the degree of steam was a mass of fibrous roots; and the untreated soil revealed a plant the roots of which were without fibrous roots and badly diseased. This experiment was conducted on old soil. Cucumbers were treated in like manner, and the experiments proved that soil partially sterilised produced plants of a vigorous character that were earlier in flowering and fruiting, and there were more of them. The illustrations were most convincing. Allusion was made to the loss of plant food constituents when "sick soil"—soil already used once—is thrown away. The conclusions arrived at by Dr. Russell in regard to the partial sterilisation of the soil were these: (1) It increased the amount of plant food in the soil; (2) on roots and flowers, better rooting and better flowers; (3) the soil can be used again, and from a commercial point of view you can use the soil two or three times. At the present time, however, it was not possible to say how far the gain is worth the cost of sterilisation. Methods by which the soil can be treated were next illustrated. Iron or steel grids with steam pipes and the steam under pressure forced through the soil

were illustrated. Sterilised soil should be covered from rain, or the properties may be washed out. The killing is not to be complete; it must be only partial. There is a risk of overheating. Baking or steaming the soil is a matter of individual convenience. In dealing with rather large quantities, the cost of steaming should be about one shilling and fourpence per load, and baking about sixpence per load. The question of cost, however, depends so much on what quantity of soil is treated. Partial sterilisation of soil by other means than steam-heating was gone into in considerable detail. Dr. Russell placed the different agencies into two different groups. In the first group he put formaldehyde, pyridæ, calcium and sulphide. The second group comprised carbolic, cresol, tolual, petrol and other tar oils. The method of putting these on the soil is simpler than that of steam-heating. Much the most convenient method of treating soils with the above-mentioned chemicals is to water or spray them on the soil or mix them with the soil. Formaldehyde is a vapour, and is better in consequence. Tolual and petrol are both inflammable, and also are not good for wet soils. In this connection Dr. Russell said steam-heating is the most effective, but the chemicals mentioned in the first group were getting very near to steam. An injection used in the Vine districts on the Continent was illustrated, showing how chemicals by a very simple method were injected in the soil to destroy the phylloxera. This not only got rid of the pest, but also added to the fertility of the soil. In regard to the cost of chemicals, they were less expensive than steam, besides being, in many cases, more convenient. The lecturer said private growers should certainly make some of the experiments, and commercial growers too. As to the quantities of the chemicals to use, those in the first group should be used at the rate of one part in one thousand, or 2lb. to a ton. Dr. Russell said he now believes this figure to be too much, and he suggested that his audience should try half or rather less. Formaldehyde should be mixed with water, which saves an unpleasant affection of the throat. In conclusion, he said oversterilised soil resulted in great retardation; stunted growth and plants never have the same vigour that those grown in partially-sterilised soil have.

Mr. Thomas Stevenson interested the meeting with particulars of some of his experiments, and he said regarding a treated area devoted to Sweet Peas, that the results were quite 25 per cent. better than under ordinary culture. Mr. Percy Cragg said his firm had treated soil, and the plants were ready for market two to three weeks earlier than those grown with untreated soil. He said the matter of partial sterilisation of the soil opens up a large field for growers in the taking up of old soils and using them. He recommended steam sterilisation. Mr. Fairlie, an Acton amateur, spoke of the success he had had in sterilising soil. He utilised an ordinary galvanised dustbin, placing an inverted sieve in the bottom and filling this up with soil, repeating this until the required amount was obtained. He was using this soil for Carnations, and plants that were potted up in September last are now in grand condition. They stood still for the first three weeks, but now they are going ahead at an alarming rate. Mr. W. Wells spoke of the success he had achieved by using the steam from a traction-engine on a heap of soil. The cost was about five shillings a yard. Several others also spoke.

Dr. Russell, in reply to several questions put to him, said chemicals could not be applied while the plants are growing.

A well-known market-grower, speaking of Tomato culture, said he had applied formaldehyde at the rate of 4oz. to the square yard. He had also applied cresol to an old border, with results far better than usual and much cheaper.

On the motion of Mr. Percy Cragg, seconded by Mr. D. B. Crane, a hearty vote of thanks was accorded to Dr. Russell for his very interesting and practical lecture, and a vote of thanks to the chairman concluded a most successful lecture and conference.

READING GARDENERS' ASSOCIATION.

THERE was another large attendance of members on the 18th inst. at the Abbey Hall (kindly lent by Messrs. Sutton and Sons), when Mr. E. F. Hazelton of The Gardens, North Myms, Hertford, who was specially invited to Reading, gave the association the benefit of his wide knowledge on the treatment of Pears. In dealing with his subject, the lecturer stated that his experience with different varieties of Pears, and more particularly as to flavour, on various types of soil in widely-separated districts had been so contradictory that he hardly cared to dogmatise as to which were the best kinds when considered from the point of view of quality. Local experience must be the chief guide in the matter. With reference to cropping qualities, Mr. Hazelton was more definite, but said that this again was greatly affected by soil. Few fruits, in his opinion, are more fastidious as to soil than Pears. He advised purchasing trees which had been through the initial stage of training from nurserymen who paid every attention to the stocks on which the trees were worked and who spared no pains to distribute clean, correctly-named trees. The so-called cheap trees frequently offered were rarely worth the money paid for them, it being impossible to grow, lift and pack properly at the price. Directions were given for their subsequent treatment, training, pruning and gathering. A number of points were afterwards raised—the respective merits of the Pear and Quince stock, whether to prune the first season after planting or not, the character of good Pear soils, the general deficiency of flavour in Pears in 1912, together with the unusual early maturity of "late" kinds—and a good discussion arose on each head. At the conclusion of his lecture Mr. Hazelton was warmly applauded, and received a hearty vote of thanks. Two new members were elected. Some splendid specimens of Begonia Gloire de Lorraine were exhibited by Mr. F. Townsend, gardener to Mr. L. G. Sutton, Hillside, and were awarded the association's certificate for cultural skill. Mr. G. West, gardener to Mrs. Finch, of Hurst Grove, showed some very nicely-grown blooms of white seedling Chrysanthemums.

BOURNEMOUTH GARDENERS' ASSOCIATION.

AT the meeting held by the members on November 19, a very instructive lecture on "Pruning Fruit Trees" was given by the hon. secretary, Mr. J. B. Stevenson. Mr. George Bunyard of Maidstone, Kent, also attended, and was accorded a warm welcome by the members. He was requested to take part in the discussion which took place at the close of the lecture, and his remarks on the subject dealt with were very much appreciated. Mr. Stevenson first gave the opinions of several first-class fruit-growers on the matter of pruning, and then his own. He contended that the pruning of young fruit trees depended a great deal on the conditions under which they were planted. He did not advocate the pruning of young trees the first year after planting in the Northern Counties; but in the South he would not hesitate to lightly prune autumn-planted trees in March. He had examined the roots of young trees planted in the South one month after planting, and had found young roots 1 inch long. The lecturer referred to summer pruning and also to root-pruning, and said that when once a tree had attained to a free fruiting condition the crops would prevent a strong annual branch growth, and, consequently, very little pruning would be necessary. If a tree had filled the available space and further extension was not desirable, leading shoots should be cut back to fruit-buds.

POOLE ALLOTMENTS ASSOCIATION, LIMITED.

UNDER the auspices of the Borough of Poole Allotments Association, Limited, a lecture on "Vegetables for Home Use, Market and Exhibition," was given by Mr. G. Garner of Bournemouth in the Guildhall on Wednesday, November 20. The Mayor of Poole (Alderman Herbert R. Carter, J.P.) presided, and referred to the good work being done in the district by the association, which now numbers about seven hundred members. The meeting was an open one, and gardeners and amateurs attended as well as the senior scholars from the schools in the neighbourhood with the schoolmasters. The lecturer dealt with the matter of soil preparation, manuring, cropping, inter-cropping, selection of produce, the principal detail work connected with the summer cultivation of the crops, lifting and storing, and also with the preparation of the specimens and the best way of staging them at exhibitions.



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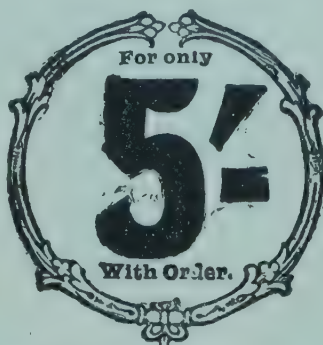
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DUNFERMLINE CHRYSANTHEMUM SHOW.

THIS show is usually one of the best in Scotland, and the one opened in St. Margaret's Hall, Dunfermline, on November 22 was a record in point of both numbers and quality. The entries showed a considerable increase on those of former times, and the quality was very high indeed. In the pot plant classes Mr. N. McLean, Mr. R. Boag, Mr. J. Marshall, Mr. J. Wilson and Mr. T. Gilmour were the first prize-winners. In those for cut Chrysanthemums interest centred in the competition for the Seaforth Cup for eight vases of Japanese, in which Mr. G. Stewart, Tulliallan, took the first prize, Mr. J. Waldie coming in second. In the other classes for cut blooms of Chrysanthemums the first prize-takers were Mr. W. Riddler, Mr. J. Waldie, Mr. G. Stewart, Mr. J. M. Proctor, Mr. J. Meldrum, Mr. A. McGowan, Mr. I. Collins, Mr. A. McCance, Mr. P. Sanders and Mr. A. Reid. In the classes for plants other than Chrysanthemums, Mr. J. Mitchell, Mr. H. Cumming and Mr. C. Palmer were the leading winners. Mr. J. Proctor was first for Grapes; Mr. R. Fraser had the best collection of Apples. Amateurs compete in increasing numbers at this show, and it is a matter for regret that in a necessarily abbreviated report the names of the successful competitors in their classes cannot be detailed, and that the vegetable prizes for gardeners and amateurs alike cannot now be enumerated.

DUNDEE CHRYSANTHEMUM SHOW.

THE annual show of the Dundee Chrysanthemum Society was held in the Kinnaird Hall, Dundee, on November 22 and 23, and was a highly successful one. Cut blooms were very fine, and the prize for twelve vases of Japanese in twelve varieties was won by Mr. J. M. Robertson, Letham Grange, Arbroath, with excellent flowers; Mr. A. Duncan was second, and Mr. J. E. Davis third. Mr. D. Keiller, Seabourne, was first for eight vases and also for six. The winners of first prizes in other classes for cut blooms were Mr. T. C. Brown, Mr. D. Keiller, Mr. James Beas, Mr. A. Duncan, Mr. J. Rae and Mr. W. Cook. Mr. G. Scott had the best basket of Chrysanthemums and the best dinner-table decorations. Mr. J. Beas won for a side table of singles. In the pot plant classes the Corporation Cup for nine plants was won by Mr. G. Scott, Mr. James Beas being second. In other plant classes Mr. Scott, Mr. James Beas and Mr. A. Duncan were the leading winners. Amateurs showed well in their classes, and their Chrysanthemums and vegetables were, as a rule, very fine. Mr. Denholm was the leading prize-winner among the amateurs. Messrs. W. P. Laird and Sinclair contributed a very fine exhibit, showing some superbly-arranged florists' work and other subjects. Messrs. D. and W. Croll exhibited a fine variety of Chrysanthemums, and Messrs. Harley and Son sent an effective display of fruit.

NORTH OF SCOTLAND HORTICULTURAL ASSOCIATION.

THE monthly meeting of this association was held in the Botanical Classroom of the Marischal College, Aberdeen, on November 20. In the unavoidable absence of the president, Mr. J. McKinnon, Haddo House Gardens, Mr. A. Robson, vice-president, occupied the chair. There was a large attendance of members. The paper of the evening was a lecture by Mr. A. Brown, Perth. It was entitled "A Trip to Holland and the Bulb Fields," and was fully illustrated with a splendid series of illustrations. Mr. Robson gave a graphic account of his visit, also many interesting and informative particulars of what he saw there, of special interest to horticulturists. On the motion of Mr. W. B. Clarke, supported by other members, Mr. Brown was most cordially thanked for his lecture, the chairman saying that it was one of the most interesting he had heard. A pleasing series of reports on novelties of the year 1912 were submitted by Mr. Ironside, who reported on new vegetables; Mr. Douglas, Keppelstone, on novelties in flowers; Mr. Smith, Fintray, who spoke of new fruits; and Mr. Robertson on plants. These gentlemen were thanked after a useful discussion on the subjects. Mr. Ironside was presented with certificates for Carrots and Onions, and Messrs. Adam and Craigmire for their new Rose Bon Accord.

AYR CHRYSANTHEMUM SOCIETY.

THIS society held its annual show in the Town Hall, Ayr, on November 20. The entries were quite equal to those of former years, and the quality was generally considered quite as high as usual in most classes. The pot plants were of exceptionally good quality, the offer of the Pollock Cup having stimulated interest in the largest class for these, with the result that the winning exhibit was a splendid one. The handsome cup was presented this year by Mrs. Pollock, Glenfairn. It was won by Mr. William Currie, the gardener to the lady who presented it, and much pleasure was manifested in his securing this cup for the first time, the win being a highly creditable one, and the plants shown by Mr. Currie were specially fine. Mr. R. J. Clark, Cambusdoon Gardens, was second; and an Ayr amateur, Mr. R. Jamie, third. In the other Chrysanthemum plant classes Mr. Currie and Mr. Jamie were the victors. In the classes for cut blooms, Mr. A. S. Watt, Whiting Bay, Arran, led in the leading one with good Japanese blooms in six vases, as well as for three vases, two vases of white and two vases of yellow Japanese. Mr. R. J. Clark had the best singles in vases and the best vases of Chrysanthemums not disbudded. Mr. A. S. Watt led for twelve blooms of Japanese and for six incurved. Mr. Currie had the best ladies' sprays of Chrysanthemums, hand bouquet of the same flowers, and six sprays of Chrysanthemums.

In the other classes the winner for the circular table of plants was Mr. Currie; second, Mr. R. J. Clark. Other winners in the various classes for plants other than Chrysanthemums were seen in Mr. R. Blair, Mr. R. J. Clark, Mr. W. Currie and Mr. A. M'Cartney. Mr. A. Noble led for cut stove or greenhouse flowers, and for a bouquet of everlasting flowers and grasses, while Mr. C. L. Randall

won the first prize with his basket of hardy foliage and berries.

The fruit classes were of great excellence. For black Grapes Mr. A. M'Cartney, Auchincruive, led, and for white Grapes Mr. A. Noble was first. Mr. T. Smith, Kilmarnock, led for dessert Apples and for baking Apples, Mr. Noble and Mr. W. Campbell taking the prizes in the smaller classes for these. Mr. M'Cartney was first for Pears.

Vegetables were very well shown, and the prize for the collection went to Mr. T. Anderson. Other winners here were Mr. W. Campbell, Mr. J. Peattie, Mr. R. Blair, Mr. R. Lawrie, Mr. W. W. Manson and Mr. J. M'Ilwraith. Amateurs showed well in their section, the leading winners being Mr. R. Jamie and Mr. W. W. Kerr for Chrysanthemums, Mr. W. Paton and Mr. T. Heffern for fruit, and Mr. T. Anderson for vegetables. Mr. T. Anderson, who was the winner of the collections in both of the sections, is an amateur who is making quite a special success with vegetables, his Leeks in particular being very fine.

BOOKS.

The Guild of Garden Lovers.*—Judged by the somewhat copious index, this book would appear to deal with a great mass of hardy plants of all descriptions, though in reality it touches upon most of them but lightly, while a large number have to be content with the mere mention of their names. The book is of the uncommon order and does not treat of gardening seriously, but prefers to bring in a mythical set known as the "Guild," whose chief members figure as "Daisy," "Rosemary," "Violet" and "Heather." Now and again one of these propounds a query, to which the others reply, the original questioner, in a brief summing up, usually deciding to adopt some of each of the suggestions given. In this way Goat's-beard, Spiraea, Columbines, St. Bernard's Lily, Osmunda, Snowdrops, Celandine, yellow Day Lilies and Calceolaria amplexicaulis are in danger of being associated together in one bed of about nine feet across. Such indiscriminate mixtures of plants are not likely to lead to a successful result, any more than the indefiniteness of the idea is calculated to be helpful. That a book written on the question and answer plan might prove both helpful and instructive we have no doubt. We incline to the opinion, however, that the lessons such a book should teach be not of the problematical kind, but rather direct and to the point. In a concluding introductory sentence it is stated that while what is written "cannot pretend to instruct, it may suggest some ideas which garden-lovers may be able to turn to their own uses." The "ideas," however, are somewhat limited, and certainly not original.

The Practical School Garden Note and Record Book.†—This little book, the cost of which is but 6d., is, as we are informed in an introductory note,

"intended to fill a gap that has long been vacant, and to be a genuine help to both scholar and teacher." It has been brought into being through the ingenuity of Mr. John Weathers, the well-known Horticultural Lecturer and School Garden Instructor to the County Council of Middlesex—hence it is the child of experience, born of long knowledge of the want. In some degree it is virtually a school garden catechism as to many things pertaining to the soil, its component parts, to plant foods in the soil and air, the garden uses of manures and those many other essentials which every young gardener should know at the beginning of his career. And nowadays, when gardening in connection with school work forms so useful a part of our educational system, it is the more important that the desired information comes from a reliable source. One page is devoted to questions; its opposite is left open for the answers. There are

* "The Guild of Garden Lovers," by Constance O'Brien; price 3s. 6d. London: G. Routledge and Sons, Limited.
† "The Practical School Garden Note and Record Book," by John Weathers, Horticultural Lecturer and School Garden Instructor to the County of Middlesex; price 6d. London: Longmans, Green and Co., Paternoster Row

also references as to where the right answers may be found. A glance at the table of contents will indicate the scope of the note-book. Not only are the vegetable crops—the most important, perhaps, from a school garden point of view—dealt with fully, but space has been made for recording details concerning flowers, fruits, trees and shrubs of all descriptions. Hence the note-book is calculated to be not merely a gap-filler, but a diary or reference book, whose value will increase with the years. We wish it every success.

"Country Life" for November 30 contains, among other articles, an illustrated account of "Great Maytham, Kent," by Lawrence Weaver; "Tales of Country Life: Sammy and the Caller," by Bertram Smith; "Ashes of Time" (Poem), by Herman Scheffauer; "The Aurochs and the Bison" (illustrated), by William A. Baillie-Grohman; "In the Garden: Temporary Wind Screens in Gardens" (illustrated).

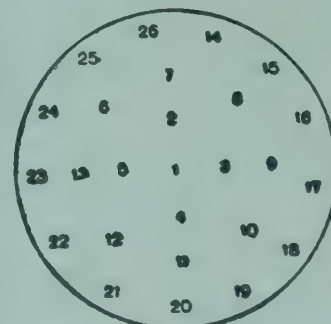
GARDENING APPOINTMENT.

MR. DONALD MCINNES, foreman at Glamis Castle Gardens, has been appointed head-gardener to W. D. Graham-Menzies, Esq., of Hallyburton, Coupar Angus, in succession to Mr. Alex. Innes, who takes over the management of the extensive nurseries of Messrs. D. and W. Croll, Broughty Ferry.

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Messrs. Phipps and Ireland, Alpine Nursery, Barnham, Sussex: Alpines, Rock Plants, and Hardy Perennials; also pamphlet on "How to Plant a Rock Garden."
Messrs. Dicksons, Chester: Ornamental and Forest Trees.
Messrs. Fisher, Son and Sibray, Limited, Handsworth, Sheffield: Hardy Trees and Shrubs.
Mr. W. Deal, Kelvedon, Essex: Sweet Peas.
Messrs. E. P. Dixon and Sons, Limited, Hull: Nursery List.
Messrs. W. Drummond and Sons, Limited, Dublin: Nursery List.
Mr. M. H. Sinclair, Rubislaw Nurseries, Aberdeen: Roses and Hardy Plants.
Messrs. Little and Ballantyne, Carlisle: Trees.
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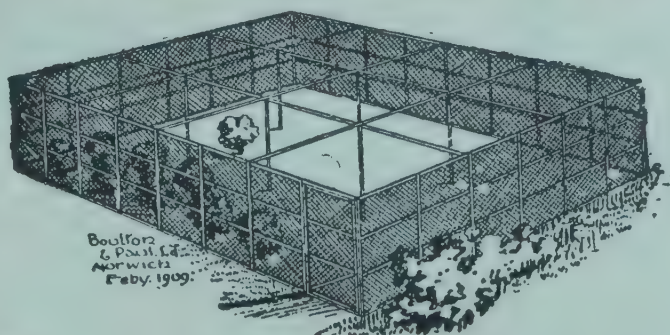
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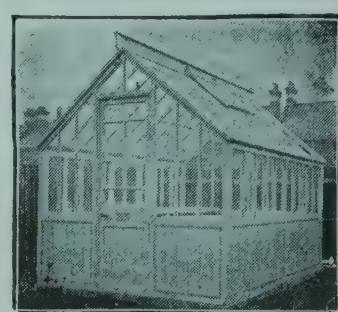
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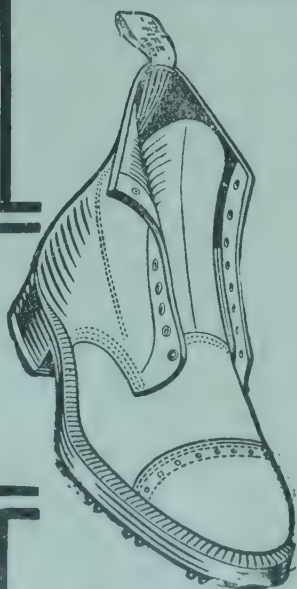
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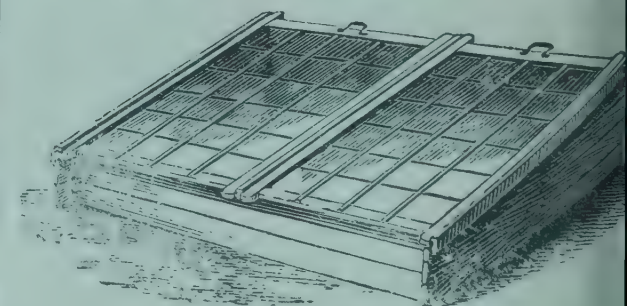
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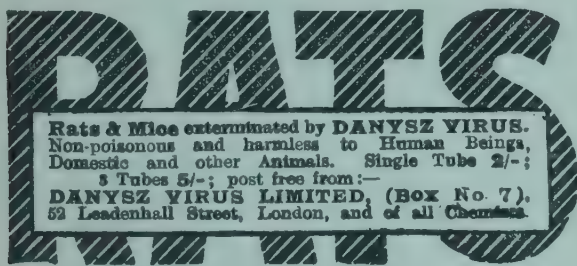
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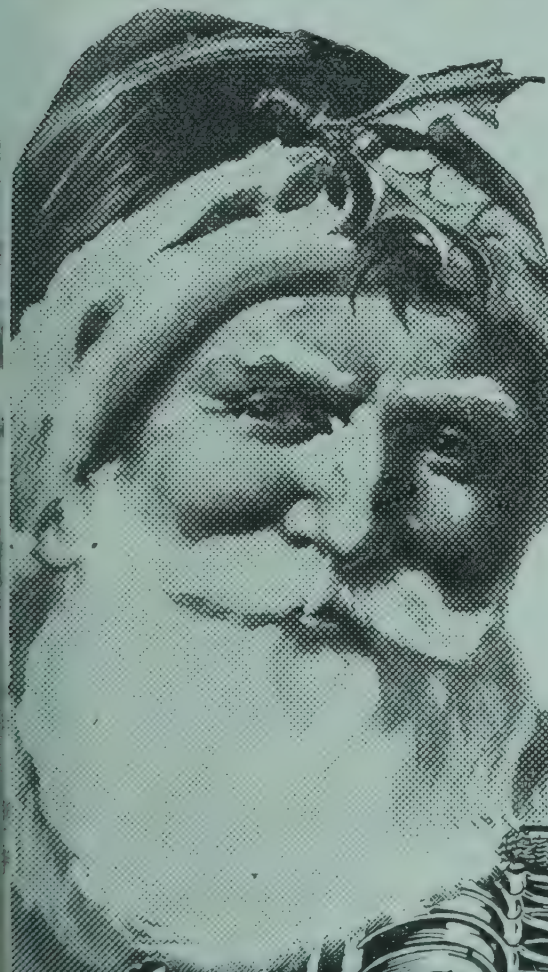
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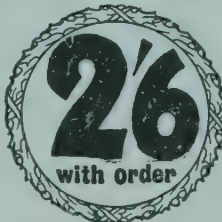
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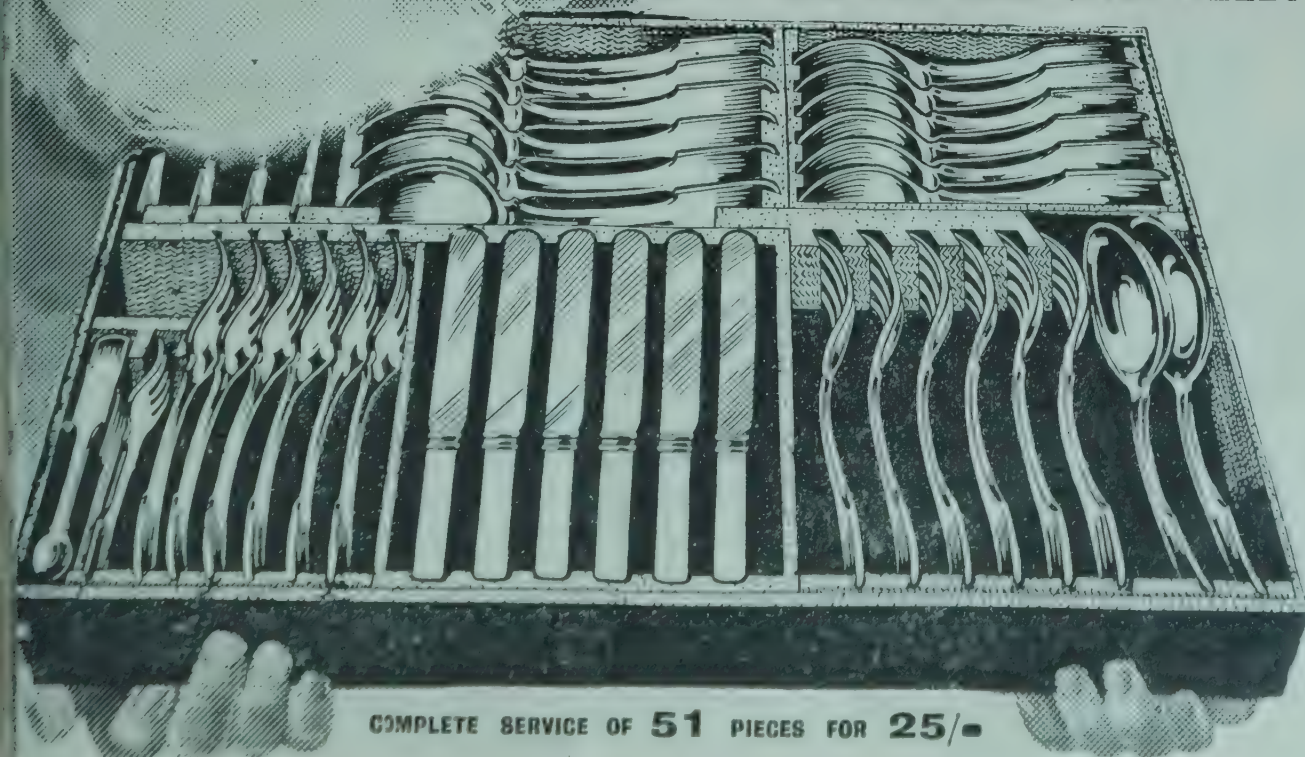
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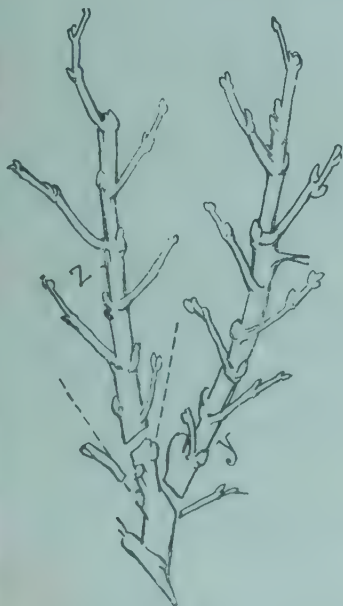
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THE GARDEN.

No. 2142.—Vol. LXXVI.

DECEMBER 7, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.

Office: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

What to do With Frozen Plants.—If plants in a greenhouse or frame have been inadvertently frozen, they should be thawed as slowly as possible. Shade the house or frame heavily and syringe all the plants with ice-cold water until all frost has been dispersed. It is sudden thawing, more than the actual freezing, that does the damage.

A Spring Show of Roses.—It is gratifying to know that the National Rose Society has decided to hold a spring show next year in the Royal Horticultural Society's Hall at Westminster. The date fixed is Thursday, May 1. The forcing of Roses is now so largely adopted that we feel sure this new venture will meet with success. The annual general meeting of the members of the National Rose Society will be held at the Holborn Restaurant on Tuesday, the 17th inst.

Mistletoe on Pear.—It is a curious fact that Mistletoe, which is a common parasite on the Apple, is rarely, if ever, found growing naturally on the Pear. At a recent meeting of the scientific committee of the Royal Horticultural Society, Sir Harry Veitch, V.M.H., sent two branches of Pear in which Mistletoe had been sown, to illustrate the difficulty experienced in getting the parasite to establish itself on that tree. In both cases the seed had germinated, but the branches had died, and they were typical of all the infections tried.

The Glastonbury Thorn.—From various sources we have lately heard of the flowering of the Glastonbury Thorn (*Crataegus Oxyacantha præcox*), and a tree at Kew may now be seen in full flower. Mr. W. E. Ledger recently showed flowers of this well-known Thorn from his garden at Wimbledon at a meeting of the scientific committee of the Royal Horticultural Society. The flowers are borne on short shoots, which have no definite resting period as in the normal form of the species. The committee could call to mind no analogous cases among Apples or Pears, and would be glad to learn of any such that may be known.

Eueryphia pinnatifida.—One is more accustomed to see this beautiful Chilean shrub in the sheltered gardens around or near the coast, where it is usually quite a success. It may assist not a few, however, to give it a trial in more inland places when it is stated that in the Royal Horticultural Society's Gardens at Wisley a handsome specimen 8 feet or 10 feet high has been flowering well during recent weeks. Of its beauty and distinctness among evergreen flowering shrubs there were never any two opinions, and to-day its more complete hardiness is but a question of position and experiment. The great saucer-like flowers are white, to which the brown anthers are in fine contrast.

Orders for Roses.—We understand that many of the leading Rose nurserymen are inundated with orders at the present time, and that it is almost impossible in some instances to cope with them as promptly as they would wish; consequently, customers whose orders have not been executed quite so promptly as usual are disposed to grumble. We would remind such that a nurseryman must, in fairness to all, execute orders in rotation, and that those who have a reputation to maintain will do their utmost to despatch the Roses at the earliest possible moment. A little consideration by customers at this the busiest season of the year would, we feel sure, be very highly appreciated by nurserymen.

Colour Pigment in Primula sinensis.—The current issue of the *Journal of Genetics*, published by the Cambridge University Press, contains a very learned treatise by Professors Keeble and Armstrong on the rôle of oxydases in the formation of the Anthocyan pigment in plants, Chinese Primulas and Sweet Williams being the principal kinds dealt with. Those of our readers who are keenly interested in deep scientific research would find this treatise of considerable value. Of quite another character is a long and very technical treatise by A. H. Trow on "The Inheritance of Certain Characters in the Common Groundsel and its Segregates." The principal use of this troublesome weed is to provide green food for canaries; hence no doubt this treatise will be exceptionally valuable to breeders of these birds. Perhaps we may soon have a learned and lengthy treatise on the variations and spreading characteristics of Chickweed.

Ceanothus Perle Rose.—The various sorts of Ceanothuses which flower during late summer and autumn are mostly varieties obtained by crossing *C. americanus* and *C. azureus*. All may be considered quite hardy in most parts of the country in the open, for though during severe winters the ends of the young shoots may be killed, they break up freely from the base in spring. The usual method of culture with these late-flowering Ceanothuses is to grow them in bush form in the open, though they may be also planted against a wall or fence. They bear larger inflorescences than the spring-flowering species, and the selection of colours available is much more varied. One of the best varieties is Perle Rose, which has large heads of beautiful rich rose-coloured flowers. This Ceanothus and the companion varieties comprise some of our most showy autumn-flowering shrubs, a season when flowers are by no means common in the tree and shrub department. To complete a useful selection of six varieties, the following should be grown: Gloire de Versailles, light blue; Arnoldii, greyish blue; Indigo, deep blue; Ceres, pale rose; and Gloire de Plantières, blue.

CORRESPONDENCE.

The Editor is not responsible for the opinions expressed by correspondents.)

Scented Chrysanthemums.—Over thirty years ago, a then old variety—Progne, a reflexed flower of a rich purple colour—was much grown, one reason for this being that the blossoms had a pleasing Violet-like fragrance.—H. P.

— Noting your remarks *re* "Fragrance in Chrysanthemums," page 578, I would like to draw attention to the claims of the pink single Ladysmith. At the recent Brighton Show, the fragrance of specimen plants of this variety was very distinctly noticeable as one walked past the rows, and I have long considered this as an additional reason for growing large quantities of this variety for cutting.—C. ASHTED.

— *Re* a note on the "Fragrance of Chrysanthemums," November 30, page 578, by C. Turner, I remember growing a Chrysanthemum called Progne, an old favourite of mine, very sweet-scented, like Violets, deep claret in colour and a most useful variety for decorative purposes; but I have lost sight of it for years. Mrs. Langtry and Mensa, both single kinds, are sweet-scented.—W. DRIVER, *Stonehouse, Gloucestershire*.

The Rockspray.—Sometimes a popular name as applied to an entire genus is very misleading, though particularly appropriate to a few of the species. This is very noticeable in the case of the Rockspray, which has of late years been applied to the Cotoneaster family. No fault whatever can be found against using it in the case of many members of the genus, such as *C. microphylla*, *C. humifusa*, *C. horizontalis* and others; but when applied to such as *C. frigida*, which is really a large shrub or small tree, the reason of the name is by no means evident, and might be severely criticised.—H. P.

Winter Effects of Flower and Shrub.—In the article on this subject on page 587 by that most interesting and authoritative writer Miss Jekyll, no mention is made of the Prickly Heath (*Pernettya mucronata*). Her list is so full that the omission of this plant was the more noticeable. Was it an oversight, or does it not thrive with her? Individual plants, nicely berried, are most handsome, while a bed of plants would be still more so. The colour of the berries varies somewhat, but is usually of a deep or dull pink shade, which, owing to the very small, dark green leaves of the plant, is plainly seen. There should be no hesitancy in classing this as one of the most ornamental of our outside winter plants.—C. T., *Higgate, N.*

The Deciduous Cypress Fruiting.—I was very much interested in reading the notes by "W. D." and "G. G." in THE GARDEN for November 9, page 562, about the Deciduous Cypress fruiting. In the pleasure grounds of Standish House, Stonehouse, Gloucestershire, there is a nice specimen of the Deciduous Cypress, bearing fruits near the top of the tree. No doubt the Cypress naturally likes a damp situation; it is growing quite close to the fish pond, and many roots can be seen at the edge of the pond. I believe the late Mr. Richard Potter planted the tree about fifty years ago. He extended the gardens and improved the place during his long residence at Standish. I also remember seeing the Deciduous Cypress referred to by "W. D." at Syon House, Brentford, being employed in the gardens there during 1865 and 1866 as under-gardener.—WILLIAM DRIVER, *Stonehouse, Gloucestershire*.

Primula Forbesii as a Cut Flower.—A prolonged acquaintance with this beautiful little Primula has enabled me to learn and appreciate its good qualities as a cut flower. I am almost inclined to think that I like it better than *P. malacoides*, especially since I have grown both the lighter and darker shades. They blend so well together when nicely and lightly arranged in suitable vases. They always keep in good condition for a fortnight when cut, but it is only fair to say I have no gas in my house. I had an exquisite vase on my dinner-table last week. There was a sort of undergrowth of the mealy form of *P. kewensis* with a few flowers fully open, and under it, as a sort of guard petals, some Maidenhair. The top growth was all *P. Forbesii*, the darker deep ruby red ones predominating. As this was my house-keeper's arrangement, and as I knew nothing about it until it was a *fait accompli*, I feel I may say a word in its praise.—JOSEPH JACOB.

Sweet-scented Verbena for Low Greenhouse Wall.—I agree with Mrs. Earle ("Pot Pourri from a Surrey Garden") in wondering why Sweet Verbena (*Aloysia citriodora*) is comparatively seldom planted out of doors. Taking the hint from the above-named book, I have had some of these delicious little plants put out against a greenhouse wall. They survived last winter admirably, and have grown into large, healthy bushes. As soon as the frosts commence, the long stems are cut down almost to the ground and the shrub is packed with dead leaves piled up high over it, the leaves being kept in place by wire-netting. With other half-hardy plants requiring a warm wall, together with large-flowered limbing Roses, such as Reine Olga de Wurtemberg, Ards Pillar, Climbing La France, Climbing Caroline Testout, Bardou Job, &c., one can do much to beautify the ugly low walls of a greenhouse. With me the above-mentioned Roses flower almost continuously for four or five months or more, retaining their foliage until well after Christmas.—ELEANOR G. SHELLEY, *Avington Park, Alresford, Hants*.

Saxifraga oppositifolia in its Native Haunts.—Most interesting is Mr. Reginald A. Malby's note (page 604) and very charming the photograph (page 603) of one of the fairest of alpine gems. Though we do not all of us possess "rugged desolations of weathered rocks" over nine thousand feet above sea-level, we can grow this bright mountain plant with very considerable, if not perfect, success. In 1910 I grew good tufts of it on a southern slope of ordinary loam, the roots slightly protected by nothing more than weathered flints. However, in the drought of last year most of the tufts were scorched up. This year I have largely followed Mr. Malby's ideas and put in my plants so that their roots will have a deep root-run on the cool side of rocks of from 2cwt. to 3cwt. each. As the rocks are nearly flush with the soil, I expect that the dark green leaves will spread over them, and I only hope they will be mantled with as much beauty as those in Mr. Malby's photograph. The first time I saw *S. oppositifolia* growing wild was in Norway in the *débris* of the moraine at the foot of the Kjendalsbræ Glacier. This was not much above sea-level. This and other plants had been brought down by glacial action. Had I been able to ascend the glacier, I might have found *S. oppositifolia* revelling in "undulating cascades" on the lofty, rocky slopes of Jostedalbræ. As it was, I brought home the few specimen plants, but they, too, were scorched up in the drought of last year.—G. H. ADDY, *Ightham, Kent*.

A Live Garden Shelter.—The note and illustration on this subject, page 569, issue November 9, recalled to mind some very interesting and ornamental flower-beds in a garden under my charge a few years since. The beds were circular and about four feet in diameter. Instead of living withes, Hazel sticks were used in the same manner as illustrated, a stout central stake being used in the centre to keep the whole in a rigid condition. The height of the central stake was about five feet from the ground-level. At the base of the Hazel sticks, Ivy-leaved Pelargoniums, Heliotrope and Tropæolums were planted for producing a summer display. There are other subjects just as good for this scheme, but the above were used in our case as being particularly suitable for the general bedding arrangement. Where a large number of beds of geometrical design have to be planted, as, for instance, an Italian garden, a few beds planted thus will prove invaluable.—COLIN RUSE, *Lambay Island*.

The Relative Value of Manures.—While travelling in Wales last summer I happened to meet an old countryman, over whose garden I was shown. In the course of conversation with him I enquired as to what manure he used to obtain such splendid results. His answer was: "Why, horse-manure! I don't believe in your cow and pig manures." I, naturally, enquired why, and this was his logical answer: "A pig is fed to make good meat, a cow to make meat and also milk, but a horse simply feeds to live. Therefore in my thinking horse-manure is the best, owing to the former two animals extracting more goodness from their food than does a horse." I give you the above, of course, for what it is worth, and it would be interesting to hear what your readers think. From what I saw of his produce it was excellent in every respect. He also showed me ten first and eleven second prizes gained in 1911, and I have heard since that he took nearly the same number this year.—B. A. B. [We publish the foregoing letter as indicative of an opinion that is certainly original. We do not think, however, that it is quite as logical as our correspondent thinks. On heavy soil horse-manure would be the best, but on that of a sandy character we would prefer cow or pig manure.—ED.]

Shrubs for Smoky Towns.—A residence of some years in a confined and smoky district of London convinced me that, as stated by your correspondent "W. D.," page 602, evergreens should be planted but sparingly. The one, however, that gave me the greatest amount of satisfaction is not mentioned, namely, *Fatsia japonica*, or *Aralia Sieboldii* as it is so often called. This, which grew too large for indoors, was planted out, and a very handsome and much admired specimen it made. It did not resent the confined quarters as did many plants, and in time it formed a handsome clump of many stems, all clothed with noble leafage. After winter was over, the leaves were thoroughly sponged with warm soap and water, which, owing to the large leaves and their leathery nature, was really a far less formidable task than may be thought. The only trouble was late in the spring, just as the young leaves were developing, as they were then very liable to be attacked by green fly on the under sides; but syringing with an insecticide cleared them off. The early autumn display of flowers was also very attractive. I write in the past tense, as my present abode is more favourable to plant culture. The common Fig is another first-rate subject for London gardens, not as a fruit tree, but as a bold ornamental deciduous shrub.—H. P.

Solanum crispum (the Potato Tree).—This plant should be grown wherever beautiful flowering shrubs are valued. It is much hardier than is generally supposed, and owing to its quick growth soon forms a large bush. It can be planted in the border in favoured localities, or on a wall where some protection is deemed advisable. A plant on a wall at Lambay has grown from a single shoot a few inches in height to a specimen 8 feet or 9 feet in diameter and 5 feet in height during the past season. A good loamy soil suits this subject.

Abutilon vitifolium.—Seedlings of this plant are frequently disappointing, the colours of the flowers often being very inferior. This plant thrives in the garden at Lambay, both in the open borders and as a wall plant. It is easily increased by cuttings taken from the half-ripened wood in the autumn. Cuttings should be inserted firmly in a sandy compost, and placed in a shady corner of the greenhouse until rooted. Pot off singly and plant out during the following season.—C. R.

A Pretty Autumn Combination.—On page 574, issue November 16, "S. T." has a very interesting note on the above. The Kniphofias are, generally, among the most showy of all border plants, and their flowers generally harmonise well with the autumn tints in foliage. The plants are very free in the production of flowers; I have had large clumps which bore flowers during every month of the year. I recently saw a very effective combination of plants in a large border in the grounds of Highcliffe Castle, near Christchurch, Hampshire. Prunus Pissardi showed well above handsome clusters of Pampas Grass bearing lovely plumes, and intermixed with these were Kniphofias flowering freely. The effect was bold, harmonious and pleasing to the eye, and it was enhanced by the background of large evergreen and deciduous trees and the grey walls of the castle itself.—G. G.

The Californian Tree Poppy.—No plant has given me greater joy than the Californian Tree Poppy, or *Romneya Coulteri*. Its large, white, satiny flowers, produced at more or less irregular intervals from June to September, are always a source of admiration. Occupying as it does a sheltered corner against a wall where it is exposed to the full sun, it is a most desirable plant for the position. I find that it resents disturbance at the roots, like most, if not all, other members of the Poppy Order, and it is most satisfactory to purchase plants in pots for planting. In severe weather this plant needs the protection of some light and dry material, such as Bracken or leaves. In hard winters it may be cut to the ground, but signs of life soon follow, as it invariably breaks away from the base in spring.—S., *Berkshire*.

FORTHCOMING EVENTS.

December 9.—United Horticultural Benefit and Provident Society's Committee Meeting.

December 11.—North of England Horticultural Society's Meeting at Leeds. East Anglian Horticultural Club's Annual Meeting.

December 16.—National Chrysanthemum Society's Executive Committee Meeting at Carr's Restaurant, Strand, at 7 p.m.

December 17.—Royal Horticultural Society's Committee Meeting (no exhibition).

December 19.—Linnean Society's Meeting.

December 30.—Hereford Fruit Show (two days).

January 7, 1913.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster, S.W.

FUMIGATING WITH CYANIDE OF POTASSIUM.

[In Answer to a Correspondent.]

THE formula for the production of hydrocyanic acid is one part cyanide of potassium, two parts sulphuric acid and four parts water. As an insecticide, 1,000 cubic feet of atmospheric space is usually employed as the unit to be filled, and for ordinary greenhouse purposes as low an application as half an ounce of cyanide, 10z. of sulphuric acid and 20z. of water may be used. For mealy bug these must be doubled or even quadrupled if the vegetation is at rest. The stronger the acid, the shorter time must the plants be allowed to suffer exposure. Twenty minutes might do no harm with a strong application, while, forty minutes might result in death to very tender plants. The great value of a light application, such as half an ounce or 10z. of cyanide, is that no plant suffers; but the time must not be limited. That is, the house cyanided at night need

exceeding 50°, should be aimed at during the period of cyaniding. The materials are all cheap, but they vary—even water! Before now the writer has had to pay insurance on the sulphuric acid before the railway company would carry it. Near a large town this would not be asked. Beware that no one breathes the fumes of the acid, as it is a deadly poison. In conclusion, be sure the dimensions of the house to be treated are correct. Recently an assistant brought me the dimensions of a house with almost twice the number of cubic feet the structure actually contained. R. P. B.

THE ROSE GARDEN.

NOTES ON THE NEWER ROSES.

HYBRID TEAS FOR EXHIBITION.

(Continued from page 602.)

Mrs. Richard Draper (Hugh Dickson, 1912).—This is a fine Rose. It was awarded the gold medal at the "National" in Regent's Park last year, and will, I think, become very popular. It is likely



FLOWERS OF THE CALIFORNIAN TREE POPPY (*ROMNEYA COULTERI*).

not, nor should not, be reopened till the next morning. We would strongly advise you to use only half an ounce for greenhouse plants and 10z. for such things as Palms, allowing a long exposure. The procedure is very simple. Ascertain how many thousand feet of air the structure contains. If 4,000 feet, say, use 20z. of cyanide with other materials in proportion; but the amount of water need not be limited to the exact quantity; over the quantity does not matter. Get one or more earthen receptacles large enough to contain the material, which sometimes "boils" violently, and apportion an equal quantity to each. First place the proper amount of water in each; then empty in the sulphuric acid. The cyanide of potassium having been wrapped in stout paper, quickly drop each packet into its own receptacle and escape from the structure before evaporation commences. Lock the doors securely, and next morning be cautious not to breathe the internal atmosphere till ventilated anew. A low temperature, not

to be useful as a garden Rose as well as an exhibition sort, as it is very free and has an excellent habit of growth. I saw it in splendid form at Belmont this year. There is plenty of substance in the petals, and is a particularly clean, smooth-looking flower, bright rose pink on the outside, and the inside appears of that pale silvery flesh colour generally associated with La France. The flowers are large and well formed, with a good point. Altogether a most promising variety.

Mrs. Wallace H. Rowe (S. McGredy and Son, 1912).—This Rose has not been given a fair start by the raisers. They send it out with the colour description of Sweet Pea mauve! Mauve may be all right in Sweet Peas, but we do not want it in Roses, and I do not think there is any trace of it in Mrs. Wallace H. Rowe; at any rate, not here in Hampshire. With me the plants I have grown this year have produced some very beautiful flowers. Cerise carmine pink, a combination of true colours, yet a pure self; of great size, and

excellent substance and finish, leaning strongly to the Hybrid Perpetual in both habit of growth and shape of flower, producing three or four buds at the end of each shoot and on shortish footstalks that must be reduced to one bud, which can be the centre or crown bud. I have seen no sign of mildew on the plants. A very useful back-row flower, quite distinct. It has flowered again well in the autumn, and I can recommend it.

St. Helena (B. R. Cant and Sons, 1912).—This was magnificently shown at Southampton by the raisers, and it not only secured a gold medal in the new seedling class, but a flower from a thirty-six box also won the silver medal for the best Hybrid Tea in the show—a very useful performance to stand to the credit of a new Rose for one day's work. It obtains its name not from the small island of Napoleonic fame, but from the lady the Patron Saint of Colchester, and the accent is placed on the first syllable. It is a good, sound colour, cream, with a deep blush in the centre, the open flowers reminiscent of Joseph Hill at its best, but in the half-open or exhibition stage coming with a fine point. I have not grown it,

sorts as Mrs. Herbert Stevens and Molly Sharman Crawford, to name only two, anyone can grow, and they should both be included in collections of Roses, however small.

There are, I find, about a dozen new Teas that come within the limits that I set myself in dealing with exhibition Roses, and of these exactly half come from the Newtownards Nurseries of Messrs. Alex. Dickson and Sons. The others are the products of different firms, none of whom can lay claim to more than one variety, so that Messrs. Alex. Dickson and Sons are far ahead of all competitors, and the debt that they have placed Rose-lovers under is never likely to be adequately discharged; but it sits very lightly on the shoulders of most of us, and we take the good things of the Rose world as they come without troubling anything about the obvious enquiry, "To whom do I owe this?" and acting accordingly. Here is my list of twelve. I do not think I have omitted any that can lay claim to the title of an exhibition Rose, and it is those only that I am now dealing with.

A. Hill Gray (Alex. Dickson and Sons, 1911).—The veteran Tea Rose lover after whom this Rose

Mrs. Foley Hobbs (Alex. Dickson and Sons, 1910).—The best exhibition Tea of recent introduction, most reliable in every way. The raisers call it delicate ivory white; but is ivory ever white? I should prefer to call it pale cream. It is perfect in shape, a good grower, and so easy of cultivation that it should be in every exhibitor's collection. It has won the silver medal for the best Tea oftener than any other variety this season and for a box of twelve has frequently beaten White Maman Cochet. It has stood out among the new Teas as prominently as George Dickson has among the Hybrid Teas, and one cannot find a fault with it; sweetly perfumed and mildew-proof. It won the gold medal of the National Rose Society at the autumn show in 1910. The young flowers have a beautiful Picotee edging to their petals. Altogether one of the best of the new Roses.

Mrs. Herbert Stevens (S. McGredy and Son, 1910).—Disbudded and grown strongly, selecting only the crown bud, this Rose may claim to reach the exhibition standard. Here again I must part company with the raisers' description. I have grown Mrs. Herbert Stevens now for three years, and the "distinct fawn and peach shading in the centre of the flower" has been conspicuous by its absence. With me, if it has any colour in it that is not white, it must be termed eau de Nil, the ladies' name for a pale green. Anyhow, be the colour what it may, its beautiful shape is beyond question, and there is a refinement about the whole flower that is particularly charming, so much so that if I could grow only one white Rose, I should say give me Mrs. Herbert Stevens. I know there is Molly Sharman Crawford, and even Frau Karl Druschki might be considered by some to have claims; but Frau Karl Druschki "leaves me cold," as the Americans say, and it is only fitting she should. Was not her original name Lady of the Snows? Molly Sharman Crawford has a warm corner in my heart too, for reasons I need not here mention; but though possibly a finer Rose, she is not, I think, so beautiful. Hardy and vigorous, the only possible fault one can find with this Rose is that the flowers are not held quite erect; but here again I am not sure I would have them so. They are better as they are, the beauty of the flower half-hidden, shielded from the gaze of the crowd. No; there is nothing but refinement in this Rose, and I would not wish to alter it.

Southampton. HERBERT E. MOLYNEUX.
(To be continued.)

ROSE PRINCE DE BULGARIE.

Of the many Roses recommended for autumn flowering, it is questionable whether any are capable of producing finer effects than Rose Prince de Bulgarie. The accompanying illustration shows a bed of this Rose as it appeared late in September in a Surrey garden near Weybridge. This variety belongs to the Hybrid Tea section, and is well known to produce better blooms and in greater profusion during late summer and autumn than earlier in the year. In colour the blooms are of silvery salmon, deepening in the centre to a pleasing shade of apricot. It is a delightful and distinguished Rose. From the fact that Roses are grown on a very large scale in Bulgaria for the purpose of manufacturing attar of roses, this country lays claim to the title of "The Rose Garden of Europe," and in this respect the aspiring Balkan kingdom is the envy of greater Powers. It is fitting, however, that so promising a Rose should bear the name of Prince de Bulgarie.



AN AUTUMN BED OF ROSE PRINCE DE BULGARIE IN A SURREY GARDEN.

but it is certainly worth getting, and is being sent out by the raisers at 5s. for ground plants.

White Killarney (Waban Conservator, 1910).—This has been disappointing with me. Its flowers have been too small, and I do not think it is wanted. Certainly not to be mentioned in the same breath with Mrs. Herbert Stevens or Molly Sharman Crawford, to mention two good whites.

TEAS FOR EXHIBITION.

The raisers of new Roses are turning their attention to this class, and in consequence new Teas of merit are more frequent than they were a decade back. We are now obtaining Teas of more robust habit, better constitution, and very much larger flowers. They are gradually becoming more popular, and as they improve in hardiness so will that popularity increase. They are undoubtedly the most perpetual of all Roses, the most prolific in the number of their flowers, and at the same time their perfume and colours are so varied that to anyone with a fairly sheltered garden they should make a very strong appeal. It is true some of the old varieties require very high culture and no little skill to bring the flowers to perfection; but such

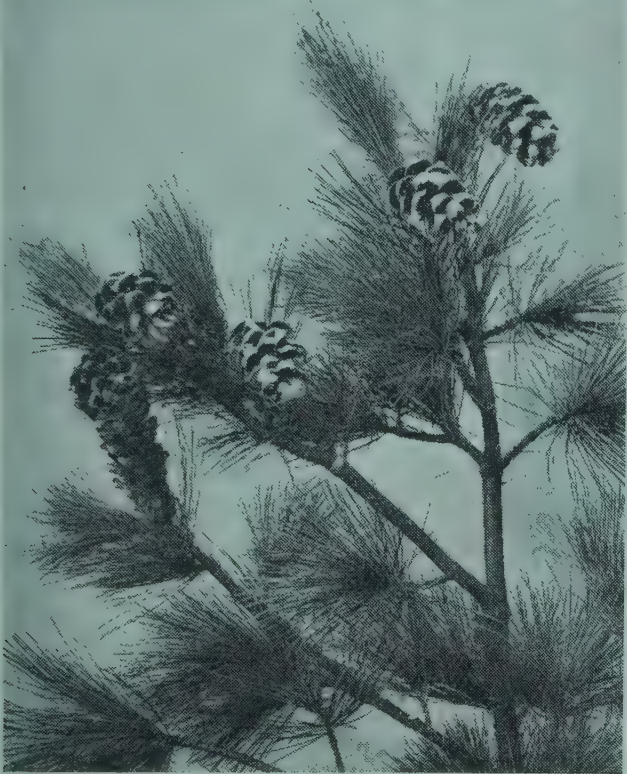
is named deserved a good Rose, and I think he has got it; in fact, I am inclined to call it the best yellow Tea in commerce. Its growth is good; the colour does not fade as in the case of most yellows, but deepens in the older flowers; the scent is there, and it is not easy to find a fault with it. The contrast with the foliage is noticeable; it is, so far as I have grown it, mildew-proof, and altogether a first-class variety. I picked a beautiful flower of it on November 10, and it has been good all the season. It was awarded the gold medal of the National Rose Society at the autumn show in 1908, but was only distributed last year.

Miss Alice de Rothschild (Alex. Dickson and Sons, 1910).—This Rose is more of a bedding variety perhaps than the last named, but it has been frequently exhibited this season. It is a fine colour, deeper than A. Hill Gray, and I have yet to see a "white" flower of it. It is a good free grower and deliciously fragrant. I see it generally catalogued as a Hybrid Tea, due, no doubt, to its vigorous growth; but the raisers call it a Tea, and its perfume alone shows that it has much Tea blood in its veins. It is a good, hardy variety for a yellow.

TREES AND SHRUBS.

THE TREATMENT OF INJURED TREE TRUNKS.

It has occurred to me that it may be of interest to other readers to know how I have treated hundreds of damaged tree trunks and diseased branches.



SHOOT OF THE MACEDONIAN PINE, SHOWING THE CHARACTER OF THE CONES.

At one time I had charge of thousands of street trees, and it used to be a very common occurrence to have one badly barked and bruised. My first duty was to trim the damaged parts of the bark and wood as neatly as possible. I would then paint them over with a mixture of Stockholm tar and sulphur of the consistency of glaziers' putty, to protect the wounds from further injury. I usually placed a piece of 1-inch mesh wire-netting round the trunk, the size according to requirements. I always found this a most effective treatment, and in time the wounds would be quite healed over.

In cases of deep holes or badly-lacerated limbs, I always made a mixture of sawdust, tar and sulphur into a stiff paste, and after the usual trimming I filled up the parts affected to the same circumference as the trunk; then wrapped round the parts treated with coarse canvas, securely tied and netted if near the ground. In this way I have saved very many valuable trees from destruction.

The loss of many street trees is often a mystery, and there are frequently other causes than an accident by collision. My experience taught me a most valuable lesson, viz., that street tree culture requires as much care and observation as any other section of horticulture, and whoever has charge of a dozen miles of trees along each side of tram-lines, and gas mains running parallel to the line of roots, must be an observant man, or he will have failures which are impossible to replace. I could give some most interesting instances of gas-poisoned trees; but my advice to all who have charge of such is to make observations between the tree spaces by thrusting a sharp-pointed steel bar well into the ground. Any gas that is escaping will follow the bar when withdrawn.

Another source of great destructiveness to trees is a fungus attack on the trunk or among the branches, particularly among Sycamores and English Elms. This disease does its deadly work often unseen and unknown until too late to remedy. Once it attacks right round either the trunk or a limb it means death; but if it is discovered before it attacks the circumference and is painted over with Stockholm tar and sulphur, it will be absolutely killed and the tree or branch saved. I have made a special study of this branch of my calling, and I know what this mixture will do. I used to make it a practice of sending a smart youth into the Sycamores and English Elms to examine the junction of the limbs to the trunk, as very often I have found strong attacks at these places. The boy would be provided with a note-book and report to me his findings. In this way very many valuable trees have been saved from a mysterious death.

Sheffield.

V. H. L.

THE MACEDONIAN PINE.

(PINUS PEUKE.)

PINUS PEUKE is regarded as the European representative of the well-known *Pinus excelsa*, or Bhotan Pine, native of the Himalaya. For some time *Pinus Peuke* was looked upon as a variety of *Pinus excelsa*, but in more recent years it has been raised to specific rank. In appearance this stately tree is not unlike the Weymouth Pine. It is, however, very hardy, and not so readily attacked by diseases, and for this reason we understand that the Macedonian Pine is being extensively planted in Germany in the place of the Weymouth Pine. The natural distribution of *Pinus Peuke* is limited to comparatively small areas in Bulgaria, Macedonia and Montenegro, an interesting point in view of the war now waging in these parts. In certain districts this Pine forms woods of considerable extent, while in Southern Bulgaria it appears here and there as solitary specimens from 25 feet to 50 feet in height, in association with Spruce, and with a thick undergrowth of Juniper. It is a tree varying much in height in its native habitat. In low altitudes it attains a height of 100 feet, while in the alpine zone, with *Pinus montana*, it is dwarfed and stunted in growth. This tree may be raised from seed exported from the Balkans, as is evidenced by the following extract from Vol. V. of "The Trees of Great Britain and Ireland," by Elwes and Henry: "Through the kind offices of Pierce O'Mahony, Esq., we received a large quantity of seed from King Ferdinand of Bulgaria in April, 1908. This has been widely distributed to different friends throughout England, Ireland and Scotland. Most of it was tardy in germination, and the seed came up irregularly, some not germinating until 1909."

There are several fine specimens of this tree in England, and at Kew there is a group of healthy trees near to the Isleworth Ferry Gate, a portion

of this group being illustrated on this page. These trees, it is interesting to observe, were raised from seed of the original importation in 1864.

ROCK AND WATER GARDEN.

ROCK GARDENS IN THE MAKING.

(Continued from page 604.)

The Stability of the Rocks.—In the construction of the larger rock garden there is nothing of greater importance than the assured stability of the rocks. Conversely, there is nothing so disastrous as shifting or settling rock. Such settling is most likely to occur after heavy rains, and more particularly in those instances where much rock had been built up on recently-disturbed ground. The danger in such a case is not pleasant to contemplate. It might seriously affect the erection as a whole or in part, and would of necessity upset the planting and cause much work to be done a second time. Hence the need of starting from a solid foundation. To obtain such a foundation, great masses of rock must needs be buried out of sight. In that wonderful rock garden at Friar Park, hundreds of tons of massive rocks are so buried, and these, having their start on a natural rock-bed foundation, are as safe as the hills themselves. In gardens generally, a comparatively safe and solid foundation may be obtained



THE MACEDONIAN PINE, PINUS PEUKE. THIS IS A TREE FREQUENTLY MET WITH WILD IN THE BALKANS.

on gravel or clay at no great expense. In other instances adequate safety may be assured by sinking the foundation-stones deeply into firm, undisturbed soil. The gravest error of all in this connection is that of arranging rocks on recently thrown-up banks of earth. Where this is so, the rocks should be first arranged and the soil and grit supplied afterwards. In such a case the tight packing of every crevice from behind is a matter of considerable importance. For this purpose soil, brick rubble and small pieces of rock are invaluable. By wedging such a mixture into position, the roots of plants will find ample support later on.

The Naturally-Endowed Site with undulated bank or rugged, picturesque slope is in a different relation altogether, for the soil is already in position, and is stability itself. Here the operator would have to concern himself more with fashioning and so piecing together that a useful and presentable whole is assured. In such circumstances, the chief work, apart from the rock-building, would be the removal of some portion of the crude, inert soil of the bank, replacing it by more suitable material. This should be done with every stone and crevice as the work proceeds, though more particularly with those crevices whose position renders them immediately available to the planter. For such work one cannot too strongly urge the mixture mentioned above. Old mortar, broken sandstone or limestone, in pieces from the size of the fist to one-half or one-quarter that size, will be found of special value. In Nature such things play an important part by reason of their uniform coolness, and in our gardens they may be made to perform a similar function, though perhaps in minor degree. Moreover, these things nourish and sustain plant-life, hence the need for their presence in every crack and cranny the rock affords. A vacuum, whether horizontal or vertical, would, of course, be fatal to vegetation, and the fact should be writ large. In dealing with this question of rock and *débris* charged crevice, we might give more than a passing thought to

The Soil Nature Provides for her children, and how not a little of this is continually washed into position either by rain or snow, sometimes into the crevice itself, though more frequently into the very heart or tuft of the plant. Hence an alpine plant in Nature is in receipt of an annual mulch, so to say, and that by a natural process. It may be, too, that the mulch is repeated several times each year, of which the occasionally buried or half-buried examples of plants afford ample proof. Those that remain exposed are, of course, the best, not merely from the standpoint of perpetuating the species, but as object-lessons for those who have eyes to see. It is into this eternal supply of grit mingled with humus, rich as it must be in the soluble inorganic salts which are constantly being brought down from the higher slopes, that the most diminutive of alpine plants delight to root afresh, and of whose value we who garden

among such things have even as yet but the faintest idea. To a high alpine in Nature this constantly-recurring mulch is its chief food supply. For proof of it one has but to remove a tuft from a rocky ledge and view the mat of root-fibres it contains. In part this may be due to position and environment, though not entirely. The very depressed spreading nature of the tuft will show the marvellous spread of the root system in many plants, will show the ramifications of every tiny rootlet eager in the desire to embrace the moisture that is not infrequently—though all imperceptibly—associated with the rock. The same plants, too, will show us how much the rock is to them in those higher regions of the earth where, but for the rains, the mists and the snows—each and all rich in inorganic salts—these children of the mountains in these rarefied atmospheric conditions could not long survive. Thus we see how Nature provides for her own.



SILENE ACAULIS GROWING WILD ON THE ALPS.

In Lowland Gardens, and generally under cultivation, the plants are differently conditioned. We provide them with soil already rich—too rich, often enough—in vegetable matter or humus, and we see the results of our handiwork in a type of plant that, not infrequently savouring of undue vigorousness, loses not a little of that infinite beauty—dainty grace, more brilliant colouring or diminutive cushioned tuft—that so characterised it in its mountain home-life. In a word, we out-characterise certain of the flower gems of the mountain world by a generosity of treatment that probably does not make for longevity or even give to our rock gardens those brilliant colour touches that we still retain in the mind's eye. Elsewhere, in a former chapter, I touched upon the danger of soil, of soil

damp and soil richness to many high alpines having woolly tufts of leaves; and here, in a closing word upon soils, I would like to drive the point well home, to emphasise the need of more grit and less rich soil than is usually employed; more rock in a finely-pulverised form capable of being introduced into the most diminutive of leaf-tufts, there to assist in the formation and reconstruction of root-fibres, and in turn to refresh, revitalise and preserve to these plants the best with which Nature endowed them.

E. H. JENKINS.

(To be continued.)

ALPINES IN THEIR NATIVE HAUNTS.

Saxifraga muscoides.—When plant-hunting recently, at the head of the Turtmann Valley in the Valais and at an altitude of 7,000 feet, I came upon a fine mass of *Saxifraga muscoides* growing in the interstices between large pieces of rock, which had come hurtling down the alpside and had locked together in a confused pile. Here, in the accumulation of vegetable detritus, the *Saxifraga* made large "mats" of foliage, and, rising above this green moss-like carpet, the white flowers were produced in such abundance as to almost entirely obliterate the foliage.

The Cobweb Houseleek.—On the open alpside, subject to the intense rays of the July sunshine, this *Saxifraga* thrived amazingly, while on the same rocks the Cobweb Houseleek grew in downy clusters. The rosettes varied in size from the normal half inch in diameter to tiny Pea-like growths one-eighth of an inch across, and all more or less crimson in colour, owing to the fierce exposure. The *Sempervivums* appeared to grow on the bare face of rock, where the merest roughening of the surface induced a slight deposit of wind-swept detritus to accumulate.

It struck me as curious that these two plants, which we associate in our gardens as shade-loving in one case and sun-loving in the other, should be so happy in each other's company. Probably the explanation is to be found in the fact that, despite the torrid heat of the upland pastures, the soil and the partially-protruding rock masses are being perpetually moistened with the soaking snow-

water which percolates so copiously down the mountain-sides throughout the growing season, while the uninterrupted grip of winter ensures that they shall be dry and not exposed to the variations of temperature which they have to withstand in our muggy climate. Many such plants, which are generally spoken of as shade or partially shade loving in our garden, but which inhabit fully-exposed positions in the mountains, would, I believe, flower much more profusely with us if planted in a sunny aspect, provided we give them a copious water supply from March to July.

Silene acaulis.—Having zig-zagged up the steep alpside to an altitude of 8,000 feet, passing multitudes of alpine gems, lavished in the utmost profusion on every hand (but which space will not

permit me here to refer to), I came upon many glorious patches of *Silene acaulis*, the beautiful, compact Cushion Pink, which at these high elevations mantles the steeper sides of almost every protruding hummock. In such positions it is so "close" and "hard" as to resemble masses of green coral, while, when the flowers open, they are so closely set as to entirely obliterate the foliage. It is interesting to trace back some of these communal growths, which, even when covering a large space, all emanate from one strong, woody taproot, which plunges down and down into the stony soil and defies extraction. The clustered growths, however, can with advantage be split up, and if two or three individual spikelets are planted deeply and firmly into a very sandy compost, kept moist and "close" for a few weeks, they make satisfactory cuttings. After the rather poor display this *Silene* gives us in the rock garden, it comes as a great delight to tramp over alpsides rendered rosy with the innumerable tufts of this pretty plant. I have found that the moraine offers the greatest chance of success with it near to London, and the variety *pedunculata* thrives very well with me, as the illustration in *THE GARDEN* of June 17, 1911, shows, though, of course, it falls far short of the glories of the high upland pastures.

• REGINALD A. MALBY.

FLOWER GARDEN.

SOME FACTS ABOUT THE TULIP MANIA.

(1634—1637.)

THE apocryphal tales of this famous period are fairly widely known. So, too, are the sort of bargains that were sometimes made by those desirous of possessing some expensive variety when the necessary cash was short or wanting. These are the commonplaces of Tulip history or romance, and if they are not true in fact, they are in spirit, inasmuch as they illustrate in a very striking way the unreasonable and unparalleled values to which Tulips rose in the height of the mania. What actually happened was so extraordinary that it really needed no bush to excite the wonder of succeeding generations. The craze has been aptly compared to the Mississippi Scheme of Law in France and the South Sea Bubble in England, and not without good reason. They were all to be short cuts to untold riches, but in Holland, as elsewhere,

Humpty Dumpty sat on a wall,
Humpty Dumpty had a great fall,

and it took all the king's horses and all the king's men to put things anything like right again.

It must be remembered that the Tulip cannot have been a very common flower in Western and Central Europe in the early years of the seventeenth century. The first Tulip flowered in Holland in 1571, and in France in 1611. I mention these dates because it has been suggested, with great probability, that the fashion in Paris of ladies of the upper classes wearing costly flowers in their dresses and the rivalry of the young beaux to present the most expensive kinds was one of the

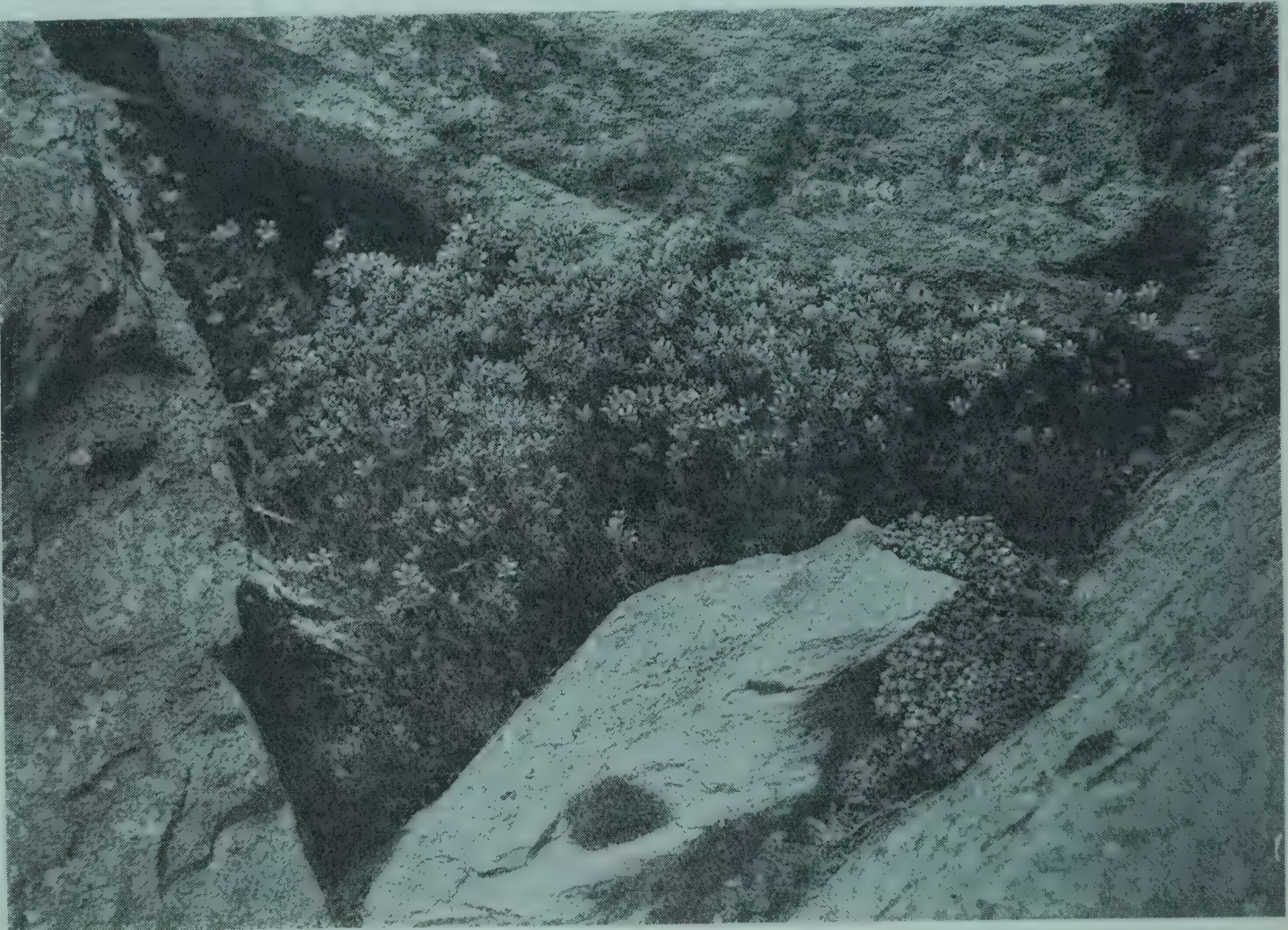
great contributory causes of the mania. For even then Holland specialised in bulbs, and the rarest and most beautiful Tulips in Western Europe were to be found there. Paris must have them at any cost. The fashion, too, was a long-lived one, and hence there was a long-continued demand.

This, coupled with the wish of the rich Dutch connoisseurs to obtain the best varieties for their own collections, gradually raised prices and kept them at a higher and higher level, until at length the idea got hold of everyone that growing and selling Tulips was a sure and easy road to riches. It is impossible to say how long the mania-time *par excellence* was in gathering. The year 1634 saw it firmly established, and from this time onward until just before the crash came in April, 1637, the chronicler has but to record one development after another, as the fever to get quickly rich spread

van der Eyek. We know this, because in Mr. E. H. Krelage's unique library of mania pictures and literature at Haarlem there are paintings of the most famous of these flowers, and one and all are broken or striped.

Now it by no means follows that two bulbs of the self-same variety will break alike—one may give good and the other poor variegations—nor does it follow that what was good this year will be ditto the next. Thus breeders, or plain, unbroken Tulips, were in much demand, and it was also an easy matter to sell inferior bulbs to what they were represented, owing to the difficulty of detection.

The other point to which I would draw attention as of particular interest is the wonderful bargains that were from time to time made for the acquisition of valuable bulbs. Of these we have documentary evidence, and they are unlike the herring and the



SAXIFRAGA MUSCOIDES AND THE COBWEB HOUSELEEK IN THEIR NATIVE HAUNTS.

among every class. Thanks to two Dutch works—the "t Samenspraecken tusschen Waermondts ende Gaergoedt" (or Conversations between Waermondts and Gaergoedt) and the "Beschrijven der Kruiden" of Abr. Munting—backed up by recent researches by Sautyn-Kluyt and Solms-Laubach, we can get a good general idea of how the sales were conducted and the gradual evolution of necessary "conditions" to suit the altering circumstances of the time.

Before I try to describe these in some detail, I would like to make one or two general observations in order to elucidate what will be said hereafter. First, everyone may not know that garden Tulips begin life with a coat of only one colour, and that it is only after a certain lapse of time they become striped or, as it is technically called, "broken" or "rectified." It was only in this altered state that Tulips brought such very high prices as £280 for an Admiral

onion, the inquisitive botanist visitor, or the jealous connoisseur tales, inasmuch as they are true. I conclude this part of my article with a list of what was once given for a bulb of Viceroy, a celebrated bybloemen variety:

	Value in Florins.
Two loads of wheat	448
Four loads of rye	558
Four fat oxen	480
Eight fat pigs	240
Twelve fat sheep	120
Two hogsheds of wine	70
Four barrels of eight-florin beer	32
Two barrels of butter	192
One thousand pounds of cheese	120
A complete bed	160
A suit of clothes	80
A silver beaker	60
Total	2,500

Taking the florin at rs. 8d., this gives the price of this one bulb as somewhere about £210.

JOSEPH JACOB.

(To be continued.)

COLOURED PLATE.

PLATE 1460.

NEW BORDER CARNATION W. A. WATTS.

THIS new Carnation is of the border type, the true garden Carnation, a plant that will grow well in any ordinary soil with simple care and attention. It has an excellent habit, with firm, erect flower-stems, non-bursting calyx and large, beautifully-formed blooms of just that delightful shade of deep rose pink called Rose Nilsson in the "Répertoire de Couleurs," page 120, a colour that pleases everyone, and can be used with telling effect in bouquets and in table decoration, besides being so charming in the border. Another attribute of this novelty is its fragrance, too often wanting in the modern Carnation. Mr. Watts, the raiser of this variety, has for many years

THE GREENHOUSE.

NOTES ON CHRYSANTHEMUMS.

THE BEST NEW VARIETIES TO GROW.

EVERY year new varieties are introduced. Some are of very high merit, others not so good. It is well, however, that all be grown by those cultivators who have time and space for the purpose. Amateur cultivators who have not the necessary space for the plants should only grow varieties that have been proved by experts to be the best. Furthermore, they should not discard older, tried sorts for those that are not proved to be, as yet, superior. It is good policy to rely chiefly on the established varieties, and to add approved new ones to them as occasion and necessity may arise. The following are really splendid new sorts, introduced during the

Fred Green.—A rich purple-coloured variety, with splendid leaves, dwarf habit. The plants should be propagated early, and stopped early in April in order to secure first-crown buds.

William Turner.—This is a grand white Japanese incurved variety which all amateurs should possess. The plants are easy to grow, and bear huge, well-formed blooms. Late first or second crowns are the best.

Mrs. Gilbert Drabble.—A marble white variety. The cuttings must be rooted early so as to obtain an early natural break and first-crown buds early in August. So treated, every bud will develop into a fine flower. It is a superior variety to Mrs. A. T. Miller, the petals incurving similarly, but being of better substance.

Lady Francis Ryder.—This is a pure white variety; the habit of the plant is good, the blooms are large, the petals reflexing and falling gracefully like a shower.

H. E. Converse.—Reddish bronze, with gold reverse, a very fine Japanese incurved variety. Propagate early, and take first-crown buds early in August. It is a very full-petalled variety, and develops into a deep bloom.

Harry Wood.—Crimson, shaded scarlet, long, reflexing petals.

INCURVED VARIETIES.

Doris.—A pure white, perfectly incurving.

Durbar.—A rich plum colour, with lighter reverse, finely incurving.

Heston Gladstone.—A white sport from the variety Lady Isabel. One of great merit.

Ethel Thorpe.—Silvery pink, high centre, a splendidly-formed flower.

Maritana.—Pure yellow, very large.

Master C. Hall.—Amaranth in colour, a large, refined flower.

SINGLE-FLOWERED VARIETIES.

Emily Smith.—A bronzy yellow, lovely in sprays, flowers late in the year.

Josephine.—Golden yellow, fine when disbudded.

Marjorie Lloyd.—A deep apricot, a large flower on stiff stems.

Margaret Gray.—A light bronze in colour, a beautifully-formed flower.

Mrs. Garner.—This is an improved Bronze Pagram, with gold tips and base; fine for exhibition.

Phyllis Bryant.—Sulphur yellow, a large, perfect flower. AVON.

A NEW BRASSO-CATTLEYA.

THE most attractive feature of the Orchid flowers illustrated on this page is seen in the large expansive lip, which is deeply and most delicately fringed. The lip is certainly most beautiful in *Brassavola digbyana* and its many hybrids, and the variety illustrated was raised by crossing this species with *Cattleya Mossiæ* Wagneri. This hybrid, known as *Brasso-Cattleya Queen Alexandra* The Dell variety, is of clear ivory white colour, except for a shade of pale green in the throat of its exquisite lip. It was shown a few weeks ago by Baron Bruno Schröder, when it received the high award of a first-class certificate from the Royal Horticultural Society. It is a bold, massive flower, and one of the most handsome yet raised.



A BEAUTIFUL HYBRID ORCHID: BRASSO-CATTLEYA QUEEN ALEXANDRA DELL VARIETY.

worked among the Carnations, and has secured four certificates for new varieties. He has always protested against "dressing" the blooms for show, and has in the strongest terms condemned this practice and the paper collars, which, we are glad to say, are now much less in evidence than they used to be.

A USEFUL HARDY BAMBOO.

BAMBUSA PALMATA is one of the most ornamental of the Bamboos, and also one of the hardiest. It is remarkably beautiful with its broad, shining leaves, and, as it soon forms a large plant, it is one of the best where a handsome group is wanted for planting in the garden or in open spaces in the woods. *B. palmata* spreads rapidly in some moist places, where it grows taller than in dry soil. In the latter it does not always look happy, but a position prepared for it by deep digging and the addition of some good old manure will soon show how this Bamboo appreciates such treatment. S. A.

past two or three years, cuttings of which may be purchased at a very reasonable price:

His Majesty.—A rich crimson, with long, wide petals, which reflex evenly. It is an improved Master David.

King George.—Mulberry red in colour, long florets, a large bloom.

G. J. Bier.—Pure white, similar in form to the variety Hon. Mrs. Lopes.

Japan.—A deep orange yellow, broad, drooping petals.

Miss A. E. Roope.—Rich golden yellow, long petals, incurving at the tips.

Bob Pulling.—A very deep yellow, a large bloom with reflexing petals. This is a sport from Hon. Mrs. Lopes.

Francis Rowe.—Bronzy red on a yellow ground, with reflexing petals.

A. M. Thorpe.—Creamy white, a very deep bloom.

GARDENING FOR BEGINNERS.

HOW TO GROW MUSHROOMS.

MANY people would like to grow Mushrooms in their gardens. Many make the attempt—some succeed, others fail—but a great many do not make a trial because they think it is quite necessary to have specially-constructed houses in which to grow them. This is a mistaken idea. If there are cellars or sheds on the premises, Mushrooms can be grown in them when the necessary heating material is procured. Mushrooms may be grown in pure leaves, or in ordinary hot-beds in the open air; but as rather more skill is necessary than in growing them in sheds, I will confine these notes to the latter.

The Needful Essentials.—Materials that will combine to make a hot-bed which will be sweet and produce a medium lasting heat. Moisture of atmosphere as well as heat, consistent moisture of the bed without excessive watering of the latter being necessary. A darkened interior of structure, exclusion of all cold draughts, and fine regulation of all ventilation.

The Material for the Beds.—This is best when procured fresh from the stables; and newly-gathered tree leaves from heaps where fermentation has not set in. The horse-manure, and the short, strawy litter with it, must be gathered fresh every morning and spread out thinly in an open shed to partially dry, and be turned over every morning to allow the rank gases to escape. When sufficient has been gathered to form a bed, we will say one measuring 8 feet long, 4 feet wide and 14 inches deep, the whole must be thrown up into a heap and left so for one day and a night. A strong heat will be induced, but, before the material burns, the heap must be spread out again, when much rank steam will escape, and the manure will be thus sweetened and made ready for use in the building of the Mushroom-bed. This manipulation

of the manure is absolutely necessary if Mushrooms are to be grown successfully. When neglected, the spawn perishes and all labour is in vain.

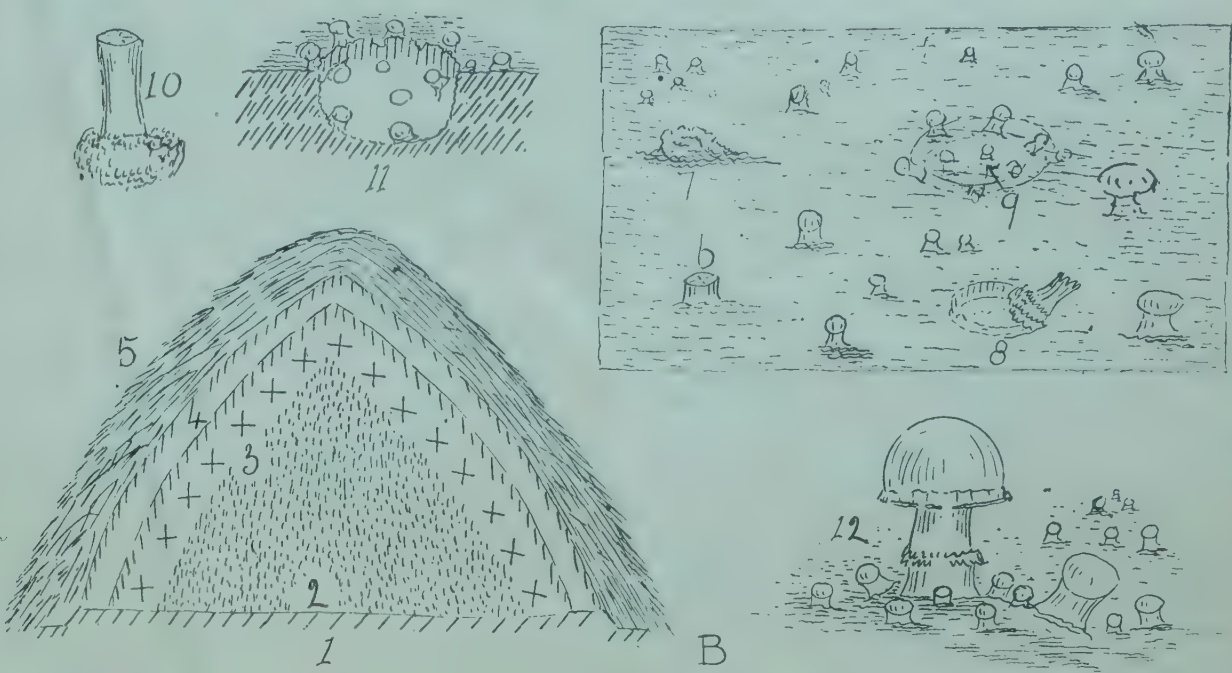
Building the Bed.—On the space selected shake out a thin layer of the manure and some leaves—one-third of leaves to two-thirds of manure—and tread all down firmly. Build up the bed in layers in this way, firming each layer as put down. The firmer the bed, the longer will the heat in it last and the more even will it be. Insert a thermometer; the heat may rise to more than 100°. If so, wait until it drops to 85°; then insert the spawn.

The Illustrations.—Fig. A shows at No. 1 a brick of Mushroom spawn; at No. 2, the white

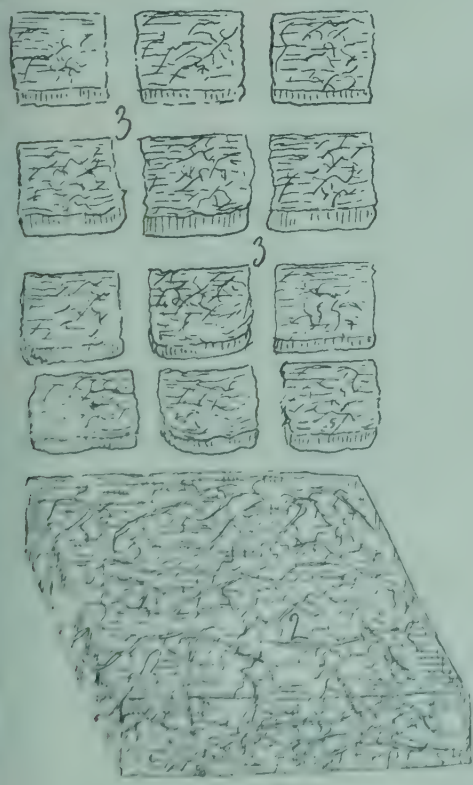
mycelium threads in it. The moist heat induces these threads to spread, and then Mushrooms grow from them. Nos. 3, 3 show the brick broken up into twelve pieces, which must be inserted 2 inches below the surface of the manure. No. 4, the retaining board of the bed, No. 5. The crosses denote the positions of the pieces of spawn put in 9 inches apart each way. Then cover the bed with new sifted loam 2 inches thick, make it firm, and finally cover all with a clean thatch of straw or hay from which the seeds have been beaten. No. 6 shows a section of the bed; No. 7, lumps of spawn; No. 8, soil and covering of straw. Where a shed is wide enough, beds on both sides may be made, as depicted at No. 9, with path (No. 10) between. A ridge-shaped bed is shown at No. 1 in Fig. B. No. 2, the bed; No. 3, spawn; No. 4, layer of manure and sifted soil on the lumps of spawn; No. 5, covering of straw.

How to Gather Mushrooms.—Do not cut them off as shown at No. 6, else the stumps will decay as shown at No. 7 and kill the mycelium near. Carefully pull up the Mushrooms as depicted at No. 8. The white threads are thus broken, and in and around the hole made as shown at No. 9 young Mushrooms will again grow. When gathered, cut off the stem and discard the stump, No. 10. No. 11 illustrates the young Mushrooms growing in the holes made by pulling. No. 12 shows a specimen that has grown to perfection, and must be used before it opens out any more. When carefully pulled, the tiny ones near will not be harmed, and will soon attain to a usable size. A good bed should begin to bear in six weeks from the time of spawning, and continue in bearing at least nine weeks.

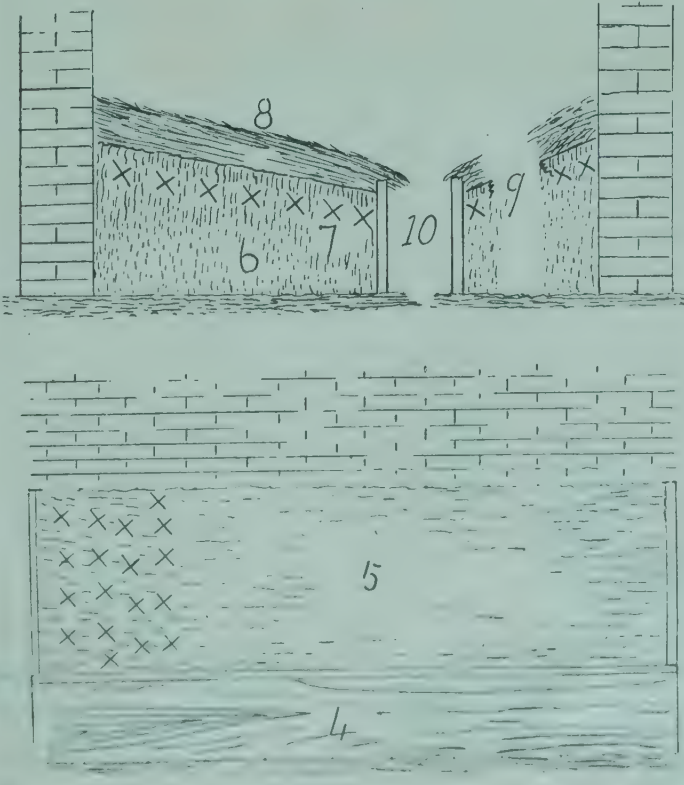
Insect Pests.—Woodlice, without doubt, are the most troublesome pests to deal with. They must be trapped by placing sliced Potatoes about their haunts, or old pieces of wood under which they shelter. Slugs are likewise troublesome, and may be kept at bay by means of soot and lime or trapped on Lettuce leaves, G. G.



2.—A RIDGE-SHAPED BED AND MUSHROOMS IN VARIOUS STAGES OF DEVELOPMENT.



1.—SHOWING THE METHOD OF SPAWNING A MUSHROOM BED.



GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Hardy Ferns.—The growth on many having become unsightly, it will be advisable to cut it away and take advantage during open weather of cleaning the ground and top-dressing with well-decayed manure and leaf-mould. Any replanting where Ferns have become too crowded may now be carried out, well mulching any that are none too hardy after doing so. There are many places where the common Bracken might be introduced with good effect, not in the flower garden, of course, but on the outskirts, where the Ivies, St. John's Wort and Periwinkles are used to cover banks and old tree stumps.

Epimediums.—These delightful spring-flowering herbaceous plants delight in shady places. Here we have a collection planted with a few of the lesser-growing hardy Ferns, and the flowers brighten up the bed before too much growth is made. For the rock garden as well they should be planted, and when established are most effective.

The Rock Garden.

Alterations.—The weather has been of great assistance in carrying out the work of remodelling and replanting, and the planting of all the large material and shrubs will enable these to become well established by the spring.

Rock Plants in Frames.—Providing the plants in the pots are well plunged in ashes or sand or other suitable material, they will suffer but little harm from the weather. They should at all times be protected from heavy rains, but receive abundance of air except during severe frost, when the lights are best covered.

Hardy Primulas.—Owing to the mildness of the weather, several of these are beginning to throw up their spikes of bloom. The present is a suitable time to give the plants a good mulching of rotted manure—that is, when there is no frost in the ground.

The Rose Garden.

Planting.—It is advisable to get necessary planting completed without delay, and this relates to all sections. Where space permits and a Rose garden proper of formal beds is planted, the use of one variety to a bed has much to recommend it, and suitable varieties of free and continuous blooming kinds should be employed.

Climbing Roses.—The supports, whatever they may be, should at this season of the year be examined, and any that show signs of deterioration should be renovated. Wooden pergolas are very effective, but unless firmly constructed soon become dilapidated. The chief supports ought to be firmly embedded in the ground, and if the ends are charred, so much the better. An effective arrangement is obtained by placing three poles triangularly, and sloping to each other at the top. These ought not to be trimmed too hard, but have the side branches left several inches long. Here we employ them similarly in the shrubberies, and with splendid effect. Several of the conifers, such as Thuyas and Thujopsis dolabrata, when too large for removal, may be trimmed up and, the ground at the base having been prepared, make excellent supports.

Plants Under Glass.

Freesia refracta alba.—The growths of the various batches of these should receive attention in the way of support, and the easiest means of accomplishing this is to place three or four neat sticks round the edge of the pot and loop them up with a strand of twisted raffia or green tape. Keep the plants in a light position in a warm greenhouse, and now that growth is free, give sufficient water and occasional doses of liquid manure.

Coleus thyrsoides.—As a winter-blooming plant there are few blue flowers to excel this, and for decorative purposes it is superb, as nice plants may be had in quite small pots, providing the plants are well fed at the roots. Over a ground-work of Maidenhair Ferns their arrangement is most effective.

Streptocarpus.—For blooming in the winter months, seedling plants in small pots are invaluable; it is one of the most useful subjects for indoor decoration. For this purpose the seed should be sown as soon as ripe, when it quickly germinates, and if

the seedlings are potted off and grown on in a warm structure, they soon develop into nice little material.

Fruits Under Glass.

Strawberries.—Unless exceptionally early supplies of fruits are required, the New Year will be quite soon enough to introduce plants in pots for forcing; then looking out the most promising crowns and putting them on a shelf in a light, airy structure for a time before placing them in a warm house.

Successional Houses.—As the Grapes are cut from these, the work of painting and generally cleansing should be proceeded with, so that the majority of the Vines at least are finished and ready for forcing again by the end of the year.

Bottling Grapes.—Place these in a cool, dark place, such as the fruit-rooms, where an even temperature is maintained, and cut sufficient of the wood so that the stalk is able to reach the water. Either end, however, will absorb the moisture to keep the bunch fresh. The bunches must **every now** and again be examined, and any bad berries cut out with the Grape scissors.

The Hardy Fruit Garden.

Bush Fruits.—Black Currants ought to be carefully watched for the mite or big-bud, which is readily detected, and if the bushes are old, grub them up and burn them. At the same time give the ground a dressing of lime, and then trench or dig and plant elsewhere. Purchase from a reliable source, selecting a good variety, such as Boskoop Giant. Black Currants, unlike White or Red, require but little pruning except thinning out the growths when these become crowded and generally keeping the bush shapely and in bounds.

Gooseberries.—The pruning of these is best delayed till as late as possible, or perhaps the birds will take the few remaining buds that are left on the spurs unless rendered distasteful; but this has to be done repeatedly, and by the former mode of leaving it, a crop, unless ruined by frost, is generally assured. The best varieties are so delicious as dessert fruits that oftentimes they are grown on trellises and walls, where they may be securely netted. A fence, either of wooden posts or iron, is cheaply constructed, and cordons planted in an oblique manner will produce fine fruits suitable for dessert or exhibition. Single, double or treble cordons, if grown against north walls, will be found exceptionally valuable, and take up but little space.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Walks.—There has been a more than usual number of weeds (annual grass) on all the walks, and the only satisfactory way of cleaning at this time is to pick them by hand. It seems a big undertaking, but really it is not so. Wet portions where moss is growing are best freshened by turning the upper layer of gravel upside down.

Lawns.—A very slight application of sifted material from the compost heap spread regularly over the surfaces of lawns exerts a wonderful influence for good. Some lawns do not require it, but there are others, imperfectly prepared at first, to which such a dressing is all-important, but, judging from their appearance, always denied.

Worms.—Only once have I been troubled with the evil of a lawn morning after morning being rendered unsightly by worm-casts. The whole of the lawn was then watered with liquid impregnated with quicklime, to the final destruction of the worms. There are vermicides to be had for sprinkling over the surfaces and watering in, and certainly in bad cases either these or quicklime should be tried. Mild weather and before severe frost sets in are the best times to apply them.

Lily of the Valley.—Either now or early in spring the beds, after being thoroughly cleaned, should have about half an inch of material rich in fertilising matter applied smoothly all over the surface. New plantations may be made at this time, and it is worth remembering that this plant soon overruns even the space of 4 inches to 12 inches that may be allotted to small clumps. It is very soil-exhausting, so that as soon as the

spikes and the foliage begin to diminish in size after proper surface applications, a new plantation should be formed forthwith.

The Plant-Houses.

Palms.—There is no better time of year than the present for cleaning. The washing of large plants thoroughly requires more labour than it is possible in the majority of establishments to afford, but a solution of soft soap, petroleum and hot water at 180° both cleanses the plants and destroys insects though one or even two washings must not be considered enough.

Cyaniding.—No more effective insecticide than the fumes of hydrocyanic acid is available, and where the gardener himself can, or is anxious to, operate so that he is sure no one can possibly come to harm by using it, I would recommend its employment in serious insect infestments. By allowing a lengthened period of the vapour in the house, a small quantity of cyanide of potassium is found to be as fatal to insect-life as a larger amount for a short period, without the risk of damage to vegetation.

Carnations.—The next six weeks are the most trying of any period to winter-flowering varieties. In the North at least it is no use trying to force the plants as some do. A little heat in the pipes to produce a buoyant atmosphere is essential, but as much fresh air as circumstances will permit should be allowed.

Young Plants.—All that can be expected of these is that they will extend their rooting system, and it may be noted that more roots are formed by keeping the soil only moderately moist than at any time wet, and their tops are strengthened. Usually no stopping need be done till January, when the lower buds will be well formed. Whether to shift on the more advanced plants from 2½-inch pots is one of those questions that must be decided on the merits of the case; but rather than risk a check by repotting it might be well to consider if a little manurial aid would not be sufficient to carry them on till the turn of the year. Malmaisons should be kept in a perfectly quiescent condition. They are building up a strong system, though apparently inactive.

The Kitchen Garden.

Tomatoes.—A small sowing may be made now, to be followed by another a fortnight hence for producing plants to succeed those now well forward in pots. The seeds should be barely covered, and the covering of the lightest material. In a very high, moist temperature germination soon takes place, and without a high temperature at this period there is little use in trying to raise the plants.

Late Plants.—To ripen fruits properly, not less than 55° to 60° of heat should now be given. As a rule, when planted out, no water either at the root or in the house should be applied. It is a very curious problem why, but for years I have found that fruit can be produced for a very long period in the winter season under these conditions, and the more heat the plants receive, the better flavoured and coloured is the fruit.

The Hardy Fruit Garden.

Young Trees.—The early treatment of young fruit trees is not so well understood in these days as it was in the past. One thing is certain, that whether the tree is a bush or a trained wall tree, hard pruning is essential to obtain a "foundation." So essential is it that I never hesitate to cut back a badly-grown young tree so as to form a new start for it. With a good root system it soon makes up for the check.

With a Difference.—Apricots and Peaches, however, have a knack, if at all decently furnished, of overcoming the deficiencies in this respect of early years; therefore it is not necessary to take such drastic measures with these. Another thing of great importance to all kinds of young wall trees is to allow plenty of space for the shoots from the very beginning. It may seem advancing rapidly to have a shoot at every 2 inches or so, but that is a delusion and an assured method of weakening the tree which nothing else but thinning will stop.

Spraying.—I do not think the present is the best time to spray, but in the case of old trees covered with moss, a good drenching with a caustic solution should be given at any time, so that the parasite may be quite killed and cleared off before spring.

R. P. BROTHERSTON,

Tynningham, Prestonkirk, N.B.

NURSERY NOTES.

MESSRS. DANIELS BROTHERS,
LIMITED, NORWICH.

FOR a great many years the name of Messrs. Daniels Brothers of Norwich has been a well-known and highly-respected one in horticultural circles. As purveyors of high-class garden and farm seeds they are renowned the world over, and many good specialities, such as Daniels' Defiance Cabbage and Duke of York Potato, have emanated from their establishment. Although so well known in connection with vegetable and flower seeds, we do not think it is generally realised what an enormous nursery business they have; nor, indeed, were we aware of the extent of this side of their enterprise until we visited their nurseries at Norwich in the early autumn of this year.

These nurseries cover an area of about sixty acres, a greater part of which is devoted to fruit trees and Roses. The demand for these during recent years has been so large that Messrs. Daniels have had to take for nursery purposes land that was at one time devoted to root crops, and the effect of this new soil on the young trees has been truly remarkable. We have never seen a better stock of young Apple and Pear trees. All were the picture of health and cleanliness, and as they are growing on comparatively light soil, they should transplant well and give a good account of themselves in their permanent situations. A local Apple named Vicar of Beighton has a good reputation in the Eastern Counties, and is one that Messrs. Daniels first sent out. It is a rather large, solid Apple of dark red colour, and will keep well into June of the following year, when it is excellent as a dessert fruit. The Roses, too, were in splendid condition, all the best varieties being grown in abundance in both standard and bush form, as well as a large quantity of all the best rambler sorts in pots.

Strawberry plants are also a speciality of the firm, and at the time of our visit there were some like one hundred thousand sturdy runners ready for sale. Black Currant Boskoop Giant and the Red Fay's Prolific occupied a large quarter of one part of the nursery, and the nursery manager pointed out with pride the sturdiness and cleanliness of the whole lot.

In the hardy tree and shrub department we were particularly interested in some large quarters of the true cricket bat Willow, for which there is such a demand just now. To ensure propagating the right variety, Messrs. Daniels, several years ago, consulted the authorities at Kew, and secured the true variety of *Salix alba cærulea* grown from cuttings taken by Mr. Shaw, the eminent cricket bat maker, from a tree which he selected as being the best variety for making high-class cricket bats. The greatest care has since been exercised to keep the stock perfectly true. We also noticed a large number of young Clematises, all of which were propagated and raised at the nurseries. They were a particularly healthy lot that ought to do well in almost any situation when planted out.

In the hardy plant department Michaelmas daisies in all the best and newest varieties, including the beautiful Climax, the double blue-flowered beauty of Colwall and a charming large white-flowered variety named Snowdon, were growing in great profusion, as well as Rudbeckias, perennial inflowers, the beautiful *Scabiosa caucasica*, Delphiniums, Kniphofias and a fine lot of Dablias,

among these being a delightful bright rose pink decorative variety named Delice.

Passing reference has already been made to the enormous seed business that is done by the firm in their extensive premises in the Royal Arcade, situated in the heart of the city. Here seeds are sent to all parts of the world, the firm having a very large export trade. At the time of our visit bulbs of all kinds were being despatched, and it was interesting to note that all were of exceptionally good quality. We were privileged to see the first catalogue issued by the firm in 1871, this being a small booklet of comparatively few pages. Now two distinct catalogues, both running into hundreds of pages and both being of great artistic merit, are published, indicating in a concrete manner the enormous strides that horticulture and, incidentally, Messrs. Daniels' business have made since that time.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

"TINGITANA LILIES" (*The Hon. Mrs. W.*).—If by "Tingitana Lilies" reference is made to the Tangier Iris (*I. tingitana*), a light protection of Larch branches, or these with Bracken Fern, would be desirable. We take it that only the growth is now showing, not the flowering spikes. The former is always made in autumn, and in our own case is about six inches high at the time of writing. In the case of freshly-imported bulbs from Italy, an earlier growth would be made, the danger being the breaking down of the shoots by snow later on. We presume the bulbs are fairly deep in the soil, 5 inches at least; if not, a mulching of Cocoa-nut fibre, 3 inches deep, should be given on the surface.

SWEET PEAS (*M. C. L.*).—As you only require the Peas for ordinary decorative work, it is quite possible that the border will serve your purpose for the third time. We cannot advise you, however, to give up the farmyard manure entirely. For the moment, however, you need not employ any. Instead of manure, give a dressing of lime, tipping a bushel in a heap to each rod of ground, covering it lightly with soil to slake, and distributing it over the surface when finely broken down. Then you might deeply trench the whole, roughly ridging it after the manner of earthing up Celery. This will both aerate and drain the soil, while exposing it to the beneficial influences of frost. In February re-trench the soil, and manure it at the same time with well-decayed stable manure. Failing this, use Wakeley's Hop Manure, which is a good substitute, and again a short time before planting. The addition of sand or grit would be very helpful.

DELPHINIUMS AND OTHER PLANTS (*E. L. M.*).—We have never heard of a 6-feet-high red or crimson flowered Delphinium, and the raiser of such a plant would be considered fairly lucky. Of tall-growing sorts of other colours there are not a few, though not infrequently some of the tallest of all are weed-growing seedlings. The following are among the best: Barlowii versicolor (rich violet), Diamdeur (rich cornflower blue, 6 feet), Dragonfly (violet, 7 feet), Félicité (6 feet to 7 feet, sky blue), King of Delphiniums (semi-double, gentian blue, 6 feet), Lizzie (Cambridge blue), Mme. V. Geslin (5 feet to 6 feet), Mammoth (sky blue and very tall), Princess May (sky blue and mauve, 7 feet to 8 feet) and St. Paul (rich azure blue, 7 feet). It should be stated that these heights represent the plants when established and well cultivated in good soil. The best tall perennials of the height named having reddish or crimson flowers are *Helenium nudiflorum* and *Kniphofia Uvaria nobilis*, *K. U. glaucescens* and *K. U. grandiflora*. *Lobelia cardinalis* Firefly and *L. c.* Queen Victoria are both superb in colour and admirable for grouping.

LOBELIA (*W. T.*).—The treatment recommended by our correspondent Mr. E. H. Jenkins is applicable to all forms of bedding Lobelia, and is much to be preferred to lifting and potting the old clumps, so many of which perish as a result of this check, and by reason of an exhausted vitality after a long period of flowering. The system is also equally applicable to such well-known bedding plants as *Alternanthera*, *Ageratum*, *Verbena* and other soft-wooded plants, which do not lift and transplant well when old. Apart from its value in this direction, the system is also a good economiser of space, a not unimportant matter for the amateur during the winter season.

TREATMENT OF PASSION FLOWER (*W. S.*).—Now that your Passion Flower has ceased to blossom, remove the ends of the branches to reduce the weight and keep it from being torn by wind in winter. In February, nail any shoots into position which may be required for extending the area covered by the plant; then cut the remaining side shoots back to within three eyes of the point where they join the main branches. Should any insect pests be noticed on the wood at that time, clean the plant with paraffin emulsion. Scale and mealy bug often attack the plant, whether it is grown indoors or outside. A dressing of well-rotted manure about the roots will do good if applied in spring.

HERBACEOUS PHLOXES (*E. B.*).—The following should meet your requirements. All are hardy and free flowering: Etna (deep red), Flambeau (orange scarlet), G. A. Ströhlein (scarlet), Boule de Feu (bright red), Elizabeth Campbell (salmon pink), Lindfield Beauty (salmon pink, with lighter centre), America (rosy centre), Jules Cambon (rosy pink), Selma (cherry red), Aquillon (glowing crimson), King Edward VII. (rich crimson), Evenement (rose pink) and Emile Littre (intense crimson). If to the above you would like to add other shades of colour, the following are all distinct and good: Mrs. E. H. Jenkins (snow white), Frau Ant. Buchner (grand white), Iris (deep heliotrope), Le Mahdi (violet), Eugène Danzanvilliers (lilac mauve, white centre) and Queen Alexandra (pale blue and silvery grey).

TREATMENT OF HELIANTHEMUM (*A. M. P.*).—In an ordinary way, and assuming the plants are of considerable age and size, we should have preferred to prune them back at the end of July, after the main flowering. In your district (Cornwall) it may be done even now, though we should advise this in a general way. The best plan of all, when the plants are getting out of hand a bit, is to prune them in February or March, and make up your mind that you would get no flowers in the year of pruning. But you would be preparing the plants for another year's work by giving them a full season's growth ahead. Apart from these things, the pruning of such plants should be anticipated, and by yearly keeping them within bounds dispense with that harsher method of cutting back which time often renders necessary.

SELECTION OF HERBACEOUS PHLOXES (*Una*).—The variety of Phloxes to which you refer are out of date. The following are among the more recent introductions: Jules Verne (clear blue), Frau Ock Buchner (white and rosy lilac), Königshofer (orange scarlet), Emmanuel Arene (deep blue), America (salmon rose), Asgir (brilliant scarlet), Albert Vandal (violet blue), Jules Cambon (rosy pink) white eye, Widar (Parma Violet blue), Lindfield Beauty (salmon), Frau Ant. Buchner (pure white), Mrs. E. H. Jenkins (not a novelty, but one of the grandest of white-flowered Phloxes), Le Mahdi (dark violet blue), Iris (crimson purple), Monnet Sully (orange scarlet), Etna (crimson scarlet), Esperance (rosy mauve), Météore (bright rose pink), Selma (salmon pink) and Splendens (vermillion). These include some of the best in cultivation at present.

PHLOXES DISEASED (*M.*).—Two of the stems, from their appearance, would suggest the presence of stem eelworm at an earlier date. We did not, however, find any in those submitted for our inspection. All the stems sent, however, give proof of being very old plants, and their inferior condition might be due to deterioration. Spring propagation would be the best means of improving the condition of the plants, and if you lift some of the old plants in February and place them in a frame, new growth will be encouraged and cuttings of the right stamp rendered available. In taking the cuttings, select only those from healthy plants, which in all probability will grow away cleanly and well. You should take care to give the young plants an entirely fresh position and a deeply-cultivated soil. If you can command the slight warmth of a greenhouse, the cuttings would root more quickly than in a cold frame. Only the fresh portions of the growing plants should be used as cuttings.

CARNATIONS FAILING (*M. S. F.*).—We do not understand your non-success with these flowers, and can only suggest that some local influence is at work which you fail to appreciate. Are you sure as to the immunity of the soil from wireworm, and, if so, have you examined the stems below ground to see that no other insect pest is attacking the plants? Then, again, in what proportion have you used the sea-sand, and was it fresh, or had it been long exposed to the weather? If the former, that might be a cause of failure. Your rather heavy loam, unless very retentive of moisture, should suit these plants fairly well. The plants are not likely to do well if placed near the edges, though at some distance therefrom they might flourish. As for the flowers lying on the rocks, that is a matter for individual taste. If the soil is good and of fair depth, the Carnations might succeed on the rock bank if this is not too steep. You say nothing about the style of plant you have been employing or the season of planting. Generally, from your letter we should attribute the failure to poorly-rooted plants and indifferent cultivation.

TREES AND SHRUBS.

DESTROYING A HOLLY TREE (*Desirer, Brompton*).—You can kill your Holly tree by exposing the main roots, boring holes in them and filling the holes with salt; or you may bore several holes in the trunk and fill them with salt. The removal of the bark will kill the trunk but not the roots. When the branches are killed, cut them off to within 6 inches or 9 inches of the trunk, and plant your Roses to grow over the snags. You may grow your Roses over the Holly without cutting the branches off; but the dead branches and leaves will look ugly until the Roses are strong enough to hide them.

TO PRUNE ROCK ROSES (*Rockery*).—The correct time to prune Rock Roses is as soon as the flowers are over. You may cut them back fairly hard, say, to wood which is three years old. When the plants are very large and old, however, it is sometimes preferable to destroy them and commence again with young plants, which may be easily rooted from cuttings inserted in sandy soil in a close frame during summer. If you do a little pruning each year, it is possible to keep the plants within bounds for a considerable time without having to prune them back into old wood and make them look ugly. If you simply wish to reduce the size of your plants without giving a general pruning, that work may be done at once.

HARDY EUCALYPTI (*Suffolk*).—The hardest of the different species of Eucalyptus are *Gunnii*, *coccifera*, *cornuta* and *urnigera*, the first named being entitled to the premier position. If the choice is limited to the five kinds mentioned by you, we should select the first four, thus leaving out *viminialis*. The best time to sow the seed is in the spring. It should be sown under glass, and the young plants be potted singly when they are large enough to handle. Then the following spring, when the frosts are over, will be a good time to plant them in their permanent quarters. We think your idea of planting the young trees 8 feet apart, with sheltering rows of Tamarisk, a good one, and cannot see that it can be improved upon.

DWARF SHRUBS (*A. C.*).—We fear that you have set us an impossible task, for we do not know of any low-growing shrubs with blue glaucous foliage and lilac or yellow flowers. Although none of these fits in with your requirements, the following are worthy of consideration: *Lavender*, with its restful greyish foliage and well-known flowers; *Caryopteris Mastacanthus*, which has hoary leaves and spikes of blue flowers towards the end of summer; and *Ceanothus*, which, if pruned hard back each spring, may be kept to near the stipulated height, one of the best blue-flowered kinds being *Indigo*. The leaves, however, are green. *Halimodendron argenteum* is a silky-leaved shrub with purplish pea-shaped flowers. *Cytisus nigricans*, with yellow flowers, is about the height needed, but the leaves are not glaucous.

FALSE ACACIAS GOING WRONG (*F. W. H.*).—As you say that your False Acacia is badly infested with a scale insect, it is probable that this is the reason why the leaves have turned yellow. If such is the case, you should spray your tree with a caustic wash as soon as the leaves have fallen. Such a wash may be prepared as follows: Dissolve 1lb. of caustic soda (98 per cent.) in 4 gallons of water. Then dissolve a quarter of a pound of soft soap in 1 gallon of water. Into this mix 2½ pints of paraffin to form a creamy liquid. Then mix the caustic soda and paraffin emulsion together, and spray over the affected tree. Use the mixture as soon as the leaves fall, and again in spring just before the buds burst. About the beginning of May commence spraying the tree once every ten days until the middle of June with paraffin and soft soap, but without the caustic soda. This will kill any young insects which may hatch out. It is possible that the root or trunk injury may be responsible for the bad condition of the tree, or partly so, and if that is the case there is little hope for it. You may safely reduce the heads of your trees to a diameter of 3 feet. The work may be done any time before the middle of February.

ROSE GARDEN.

ROSE FLOWER OF FAIRFIELD (*T. Day*).—This Rose is known as the Perpetual Crimson Rambler, and is badly addicted to mildew. We think you would find *Grüss* an Teplitz a far more beautiful Rose.

ROSES FOR SOUTH-EAST WALL (*F. P.*).—To replace the Belle Lyonnaise we should recommend *Mme. Berard*, Climbing K. A. Victoria or Climbing Papa Gontier. The border should be deepened, say, to 3 feet; and provide the Rose with some good, well-rotted manure as well as some basic slag to the lower soil. A nice fragrant climber would be Climbing Lady Ashtown, Ards Rover or Florence H. Veitch.

ROSES FOR SMALL ARCHES (*T. E. W.*).—As you require Roses of less vigour than the ramblers, you could not do better than plant the following: Light varieties—*Alister Stella Gray*, *Aimée Vibert*, *Trier*, *Lady Waterlow*, Climbing Lady Ashtown, *Johanna Sebus* and *William Allen Richardson*. Dark varieties—*Hugh Dickson*, *Grüss* an Teplitz, *Sarah Bernhardt*, *Zepherin Drouhin*, Climbing Liberty and Longworth Rambler.

ROSE FOLIAGE BLIGHTED (*J. R. D.*).—The foliage sent is infested with orange fungus. It appears late in the season and rarely does much harm, and you can do little now to stop it. Another year spray early and often with Bordeaux mixture. All fallen leaves should be burnt, and the surface soil about the plants removed in winter and also burnt. Only an inch or 2 inches of the surface need be removed, and this could be replaced by other good soil and manure.

ROSE DELIGHT (*H. E.*).—Yes; this is a very good variety, not so very distinct, however, from *Hiawatha*, and it is certainly not equal in value to *Alberic Barber*, one of the loveliest of all wichuraianas. There is a great advantage in having wichuraiana Roses on their own roots, and we differ widely from Mr. Pearson as to Lady Gay not growing on its own roots. We have this Rose in this form growing most luxuriantly, and have not found one of the wichuraianas but what will succeed upon its own roots. *Shower of Gold* is a most beautiful variety, and will be largely planted when better known. Its delightful foliage alone recommends it. One may say the flowers are a shade or two deeper than *Alister Stella Gray*. It lacks the perpetual character of this latter Rose, although it makes up for this in its extraordinary vigour. We suggest planting both on one arch, the one to give continuous blossom, the other to quickly clothe the topmost part of the arch.

LAYING OUT A SMALL ROSE GARDEN (*M. S. W.*).—We think you would like parallelogram beds better than oblong ones to surround the circular bed in the centre. These parallelogram beds can be made any length, but their width should be about half the diameter of the circular bed. We would suggest the central bed of a good red rather than a white, and you would find *General Macarthur* a more tidy grower than *Grüss* an Teplitz. This latter is all very well in a large rosery, for its growth is so strong. It is, like *J. B. Clark* and *Hugh Dickson*, quite unsuitable for ordinary bedding. *Mme. Abel Chatenay* and *Caroline Testout* would be all right for pinks, although we should prefer *Mme. Leon Pain* to the latter, and for a yellow *Mme. Ravary* would do well; but we could not well recommend *Lyon Rose*. It is rather erratic. In some gardens it grows splendidly, and in others it is a failure. We would advise either *Duchess of Wellington* or *Arthur R. Goodwin* as an opposite companion to *Mme. Ravary*.

THE GREENHOUSE.

MIGNONETTE (*A. C.*).—It is most essential that the Mignonette be given a good light position, and have plenty of air at all times. Failure to comply with these requirements is, no doubt, the cause of your non-success. In order to grow Mignonette well, the soil should consist mainly of good loam, with an admixture of broken brick rubble and sand. It should also be pressed down very firmly. In addition to this, the soil must not be kept too wet.

BLUE HYDRANGEA (*A. C.*).—It is a difficult matter to ensure blue flowers on the Hydrangea, though a fair measure of success is (if the soil is quite free from lime) obtained by watering the plants occasionally with alum water, at a strength of 1oz. to each gallon of water. Iron, too, is employed by some, the method followed being to mix about a tablespoonful of iron with each peck of soil, and in addition, as the pots get well furnished with roots, put a pinch in the water about once every week. If in the open ground, the plants can be watered with the mixture. Some nurserymen make a speciality of blue-flowered Hydrangeas, but the method employed is a trade secret.

LAPAGERIAS (*Suffolk*).—The cause of your Lapageria leaves turning brown and dropping off is that they are badly attacked by thrips, which are present in great numbers. We have invariably found that the XL All Vaporiser is perfectly effectual in destroying these pests; that is, perfect insects, though occasionally some of the eggs may escape. The remedy for this is to vaporise three or four times at intervals of about a week. Instead of this you may, if you wish, syringe with one of the many insecticides that are now to be obtained. Another point concerning your Lapagerias is that, judging by the leaves sent, we should say that the roots are not in a very satisfactory condition, and sickly plants are far more prone to the attacks of insects pests than healthy ones. If the condition of the roots is attended to, it will doubtless in the future do a good deal towards keeping these pests away.

SPORT FROM CHRYSANTHEMUM: J. C. GRIEVE (*R. B.*).—The blooms you were good enough to send us are absolutely identical with those of an old Continental introduction bearing the name of *Mme. Casimir-Perier*, the blooms of which have a creamy white centre, tinted pink, just like the flowers you sent to us. *Mme. Casimir-Perier* gave a sport of a beautiful yellow colour, shaded and striped red, and this sport bears the name of *Mrs. A. Willis*. The latter has frequently reverted to the original, and the original has often sported to the same colour. Your plants are therefore of no more than ordinary value. *J. C. Grieve*, the name of the plant from which your sport was derived, is unknown to us, and is not catalogued by any of our leading specialists, nor is it in the catalogue of the National Chrysanthemum Society. It is possible that it may be identical with *Mrs. A. Willis*, to which we have called attention, hence the reason of your possessing the sport that is none other than *Mme. Casimir-Perier*.

FRUIT GARDEN.

INJURY TO PEAR LEAVES (*F. W. R.*).—The Pear leaves have been badly infested with the Pear leaf-blister mite, *Eriophyes Pyri*. These mites winter in the bud scales. In spring they enter the leaf and cause the formation of small galls. Eggs are laid within these, which soon hatch out to produce mites. These make other galls, and so the process goes on through June, July and August. As the galls grow older they change colour, ultimately becoming black. Infested leaves should be hand-picked as far as possible. Apply the lime, sulphur and soda wash twice—early December and February. Spraying must cease

in spring as soon as the bud scales are fully opened. Lime sulphur and soda wash: Lime, 3lb.; sulphur, 3lb.; caustic soda, 1lb.; soft soap, 1lb.; water, 10 gallons; or quantities in proportion.

CREOSOTE AND GRAPES (*F. F. M.*).—It is well known that fruit does absorb the flavour of the material by which it is closely surrounded. A case in point is Apples. Pears packed in or stood on straw in the fruit-room. The straw becomes more or less damp by the moisture resulting from the sweating of the fruit, causing it to become musty and of unpleasant odour, which, as we know too well, is communicated to the fruit. But we were not before aware of the extreme sensitiveness of Grapes in this direction. How often it has happened in our experience that we have tasted Grapes in all other respects seeming all right, and having a peculiar, foreign and disagreeable flavour. This is also often the case with Melons, and sometimes even in the case of Peaches. Does your experience with the creosote and your Grapes give a clue to the causes in so many other cases?

MISCELLANEOUS.

FUNGUS ON RUSTIC CHAIR (*W. S.*).—It is probable that the wood of your chair is full of mycelium, hence the repeated growth of the fruiting stage of the fungus. All that you can do is to soak the affected parts in a strong solution of carbolic acid or permanganate of potash. This may be done by applying the liquid repeatedly with a paint-brush. Should it not prove effective, remove the fungus-infested sections and make up with new wood.

POOR LAWN (*A. H.*).—You cannot do better than rake your lawn over with an iron-toothed rake to take out as much of the moss as possible; then give a surface dressing, 1 inch or 2 inches deep, of rich soil. Apply the dressing early this autumn and keep the soil raked well about until it disappears. Where the grass is very thin, a little new seed may be sown next spring. Prick the thin places up with a fork, sow the seed, rake it in and roll lightly. About May a dressing of bone-meal may be given with advantage. Do not play on the lawn next year until the grass has filled up well.

FRENCH GARDENING (*Intensive*).—Instruction in practical intensive culture on the French market-garden system may be obtained at the Burhill French Garden, Walton on Thames; or at the French Garden, Shepperton, both large and well managed. The system may be practised in most parts of the kingdom, but preferably in localities where there is a clear, pure atmosphere and a good supply of light during the winter months. Most parts of England and Ireland are suitable, and also the South-West of Scotland. You will find full particulars of the system with cultural instructions, in "French Market Gardening," published by John Murray, 3s. 6d. net.

ORIGIN OF MARGUERITE CARNATION (*W. T. S.*).—There appears to be a certain amount of doubt regarding the origin of the Marguerite Carnation; but, according to the late Mr. James Douglas, in "Carnations and Pinks" of the "Present-Day Gardening Series," the writer was informed by Mr. Ernest Benary that some say it originated in Sicily, also that Messrs. Dammann and Co. and a Mr. Hildebrand both claim to be the first to have grown the plants. The members of this section are not hardy and perennial in the same sense as are border Carnations and Pinks. They are, as a rule, raised from seed sown early in March, and the young plants grown either in pots or planted out. In this latter case they are lifted about the end of August, so as to become established in pots before winter. They are chiefly employed for flowering at that season, and in a temperature of 55° will yield a quantity of blossoms.

FAIRY RINGS IN GRASS (*W. H. B.*).—By brushing up the small Toadstools, which appear about the fairy rings on your lawn, you are spreading the disease. The Toadstools are the fruiting stage of the fungus which causes the trouble, and by disturbing them in the way you describe, the spores are distributed about the lawn. A better plan would be to pick them off carefully and burn them. There are two ways of eradicating the fungus. One is to water the rings well with a strong solution of sulphate of iron. The other is to dig the soil out in the region affected to a depth of 12 inches and make up with new soil. As the mycelium of the fungus spreads in an outward direction, the soil should be removed to a distance of 3 inches or 4 inches beyond the outer part of the circle; but there is no reason to go beyond the inner part of the ring. The latter is the most efficacious method of dealing with the trouble, for when sulphate of iron is used, new turf has to be laid afterwards, and unless the ground is thoroughly soaked, some of the mycelium is almost certain to be left alive.

NAMES OF PLANTS.—*Fern Dale*.—One of the many hybrids of *Veronica speciosa*.—*C. S. S. J.*—*Salvia rutilans* (Pineapple-scented Sage). This was the only specimen enclosed.—*Rev. R. H. W.*—All three are evidently *Saxifraga* hybrids, which it is impossible to name in this condition. No. 1 and 3 appear to have some *S. longifolia* or *S. crustata* in them, while No. 2 may be a hybrid of *S. aizoon* and some other.

NAMES OF FRUIT.—*Holme*.—Apple Queen Caroline.—*J. T. S.*—*Durondeau*.—*J. T.*—*Beurré Diel*.—*Old Subscriber*.—Apple Court Pendu Plat and Pear Swan Egg.—*A. E. D.*—*Bergamotte Esperen*.—*A. R. T.*—18, Ribston Pippin; 19, Jolly Beggar; M. Beurré Dumont; P. Aston Town; O. Maréchal de la Cour; A. Wormsley Pippin; A3, Warner's King; A4, Alfriston; A5, Venus Pippin; A6, Royal Nonsuch; A8, Victoria; A9, Lamb Abbey Pearmain; A11, American Mother; A12, Bess Poole.



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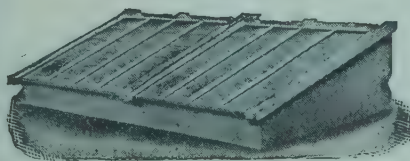
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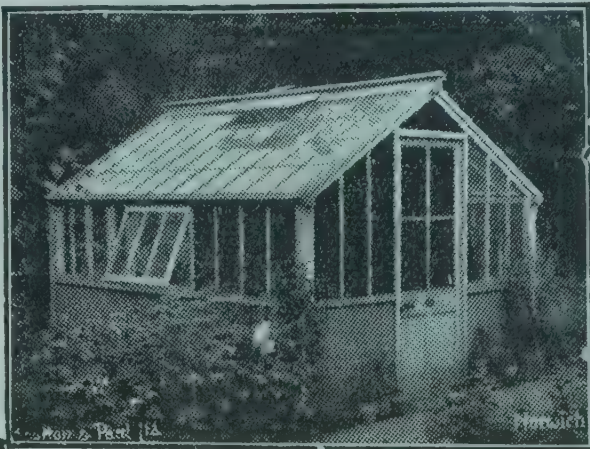
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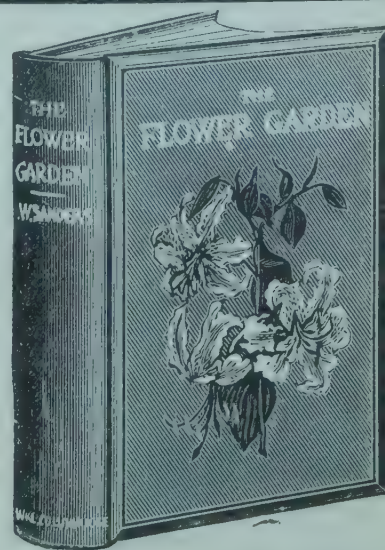
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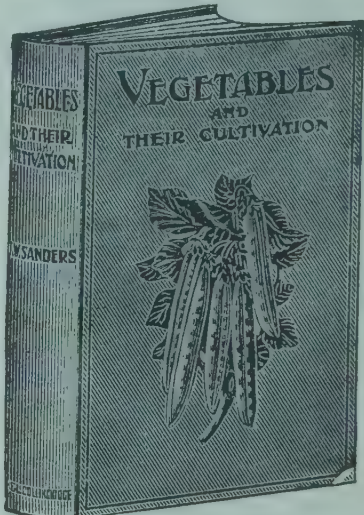
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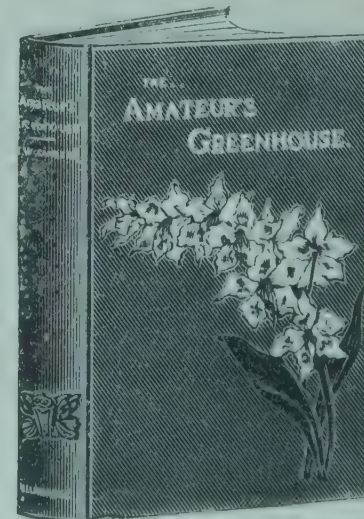
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SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THERE was a grand display of seasonable flowers, such as Chrysanthemums, Perpetual-flowering Carnations and winter-flowering Begonias, at the fortnightly meeting of the above society, held at the Royal Horticultural Hall, Vincent Square, Westminster, on Tuesday last.

FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), and Messrs. J. Cheal, W. Bates, E. Beckett, F. Perkins, G. Kelf, H. Markham, A. R. Allan, A. W. Metcalfe, J. Davis, A. Bullock, G. Reynolds, J. Jaques, G. Wythes, A. Grubb and Owen Thomas.

A comprehensive exhibit of highly-coloured Canadian Apples, all nicely packed in boxes, was shown by the British Columbia Government. Prominent among the Apples shown were Winter Banana, Spitzenberg, Wagner, Grime's Golden Pippin and Salome. The fruits were uniform in size and wax-like in appearance. One variety, of which a special feature is being made, is New York Wine Sap, a bright red variety, with firm flesh that travels remarkably well, and it is likely to become the most popular of Canadian Apples in this country. Gold medal.

A very interesting collection of bottled fruits and vegetables was staged by Mrs. Banks, 102, Park Street, W. There were no fewer than 168 distinct varieties included in this interesting collection. Among the fruits were Raspberries, Plums, Gooseberries, Figs and Currants (but not Strawberries—these are never satisfactory except as jam). The bottled vegetables comprised Cauliflower, Peas, Celery, young Carrots, Mushrooms, Seakale and Asparagus. Gold medal.

Messrs. J. Cheal and Sons, Crawley, staged an interesting collection of little-known fruits, mainly Apples. Among the Apples were Crawley Reinette, Encore (one fruit weighing 1lb. 7½oz.), Red Wing and Buxton Favourite. A new Pear of good and uniform size, named Beurré de Nagan, was also shown. Silver Banksian medal.

Preserved fruits and jams formed one of the features of this exhibition, and, in addition to the gold medal display already referred to, the following awards were made: Silver Banksian medal to Miss H. G. Sewell, 62, Harcourt Terrace, S.W., for jams; silver Knightian medals to Mrs. Miller, Marlow, Bucks, for Moyleen confectioneries, and to Messrs. Westmacott and Co., 150, Leadenhall Street, for preserved fruits; and bronze Banksian medal to Mr. D. E. Tower, Pershore, Worcestershire, for bottled fruits.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq., Sir Harry J. Veitch, Sir Jeremiah Colman, Messrs. J. O'Brien, J. S. Moss, J. Wilson, J. W. Potter, R. G. Thwaites, F. Sander, R. A. Rolfe, T. Armstrong, A. McBean, C. H. Curtis, W. Cobb, J. Cypher, J. Charlesworth, W. H. Hatcher, J. E. Shill, H. G. Alexander, A. Dye, W. P. Bound, W. Bolton and de B. Crawshaw.

Messrs. Sander and Sons, St. Albans, were represented by an interesting lot of Cypripediums and *Lælio-Cattleyas*, very nicely staged over a groundwork of fresh green moss. In the collection we observed an interesting bigeneric hybrid named *Chondropetalum Fletcherii*, the parentage being *Chondrorhyncha Chestertonii* and *Zygopetalum Mackayii*. The flowers resembled the latter parent. Silver Flora medal.

A small group of choice Cypripediums, in which Harefield Hall variety was prominent, was shown by Messrs. Hassall and Co., Southgate, N.

Messrs. Cypher and Sons, Cheltenham, also staged a select group of Cypripediums and a well-flowered plant of *Zygopetalum crinitum*. Silver Banksian medal.

Some choice seedling *Odontoglossums* formed the feature of a small group staged by Messrs. J. and A. McBean of Cooksbridge.

Among an admirable group of Orchids in season staged by Messrs. James Veitch and Sons, Chelsea, were a number of plants alleged to be the result of crossing *Zygopetalum Mackayii* with *Odontoglossum crispum*, the former being the mother parent. The whole batch of seedlings were true *Zygopetalum Mackayii*, and the same experiment, with the same result, has often been carried out. Silver Flora medal.

A group of Orchids sent by Mr. H. T. Pitt, Rosslyn, Stamford Hill, N. (gardener, Mr. Thurgood), came in for general admiration, particularly the uncommon Cypripediums shown. Silver Banksian medal.

Messrs. William Baylor Hartland and Sons, Cork, had a showy group of Cypripediums, among them *C. Sandersi* being shown in good form. The centre of the group was filled with a selection of *Cattleya* hybrids. Silver Banksian medal.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Drury, J. Green, W. J. Bean, G. Reuthe, J. W. Barr, J. Hudson, C. R. Fielder, C. Blick, J. Jennings, J. F. McLeod, J. Dickson, R. C. Reginald Neville, C. Dixon, H. J. Jones, A. Turner, Charles E. Shea, J. T. Bennett-Poe, C. E. Pearson, E. H. Jenkins, R. W. Wallace, W. P. Thomson, W. J. James, E. A. Bowles, F. Page-Roberts, W. Cuthbertson and W. Howe.

Messrs. James Veitch and Sons, Limited, Chelsea, displayed a fine table of winter-flowering Begonias, together with Azaleas and single-flowered Chrysanthemums. The Begonias were in splendid condition, bright, fresh-looking and full of flower. Winter Perfection, Julius (salmon, semi-double), Elatior (wonderfully free and bright), and Ensign were the more prominent sorts. Mrs. Bedford, of the Lorraine set, and *B. socotrana*, one of the parents of the race, were also noted. Some pretty *Bouvardias* were also on view, *B. Dazzler* and *B. Humboldtii* corymbiflora being of the number. Azaleas in quite small pots were very fine, the Chrysanthemums being of a useful character.

Mr. Clarence Elliott, Stevenage, showed choice alpine in pots on rockwork to the accompaniment of shrubs. The former included many of the rarer Saxifragas, as

Faldonside, Gloria and *Boydii*. None, however, was in bloom. Of *Gentiana acaulis*, however, a dozen plants were shown in flower, which at this season is most welcome, if a little out of its usual course.

Messrs. William Cutbush and Sons, Highgate, N., had a glorious show of Carnations, making a great central display of the new scarlet-flowered Mrs. Mackinnon. It is a most brilliant-flowered variety, and very large and full. May Day, Edna, Mrs. Waldorf Astor (yellow-ground fancy), Lady Coventry (scarlet Malmaison), R. F. Felton, White Enchantress and White Wonder were all well displayed in a tastefully-arranged group.

The Rev. H. Buckston, Sutton Hall, Etwell, Derby (gardener, Mr. A. Shambrook), showed a splendid lot of Cyclamen of the Giant and *Papilio* strains, the latter remarkable for their wide fringed, fantastically-formed petals. These were shown chiefly in white and salmon and red tones, and gave a most telling display.

Mr. G. Lange, Hampton-on-Thames, showed a glorious table of Begonia Glory of Cincinnati, a near ally of the Lorraine class, with more than an ordinary touch of *B. socotrana* in its constitution. It is brighter, too, and more effective in colour, wonderfully free and makes a handsome specimen. Mr. Lange also showed a variety of Carnations, such as Winsor, May Day, Beacon, Scarlet Glow, White Enchantress, Mikado, Rosette, Mrs. W. C. Ward, White Wonder and others. He also displayed a group of the newer Hydrangeas, *Mme. Emile Moullière* and *Mlle. Renée Gaillard*, the former with nearly pure white heads of bracts, the latter of a greenish white. These were of giant size, though only in 5-inch pots, and at this season of the year came as a revelation to all.

Messrs. William Wells, Limited, Merstham, Surrey, showed a full table of Chrysanthemums, single and decorative. Of the singles, Mensa (white), Roupell Beauty and Arcturus (crimson red) were excellent. Miss Kathleen Wells (very handsome crimson) was also fine. Miss A. Brooker (chestnut), Golden King, Mrs. G. Drabble (big white) and William Turner (also white) were among other good sorts.

Messrs. Young and Co., Cheltenham, showed a splendid lot of Carnations, excellent flowers finely displayed. Among the more imposing groups were Duchess of Devonshire, Scarlet Glow, Cheltonia, May Day (very fine), A. S. Montgomery (a sort of lilac pink, a most novel shade), Mikado, and Superior (soft rose shade).

Messrs. Cannell and Sons, Swanley, Kent, showed some very good vases of winter-flowering Zonal Pelargoniums, of which Scott Turner (scarlet), Lady Folkestone (pink), Scarlet King, Countess of Jersey (pink and white), Lieutenant-Colonel Lambton, W. Pfitzer (orange scarlet), Maxime Kovalesky (true scarlet) and J. A. Bell (freckled scarlet and white) were among the best.

Mr. H. Burnett, Guernsey, staged excellent Carnations, Mrs. C. F. Raphael, R. F. Felton, Sultan, Scarlet Glow, Mandarin (fancy), Sunburst (yellow ground), Marmion, White Wonder, Lady Alington, Mikado and Carola all being excellent.

Messrs. Allwood Brothers, Hayward's Heath, showed many vases of Carnations in their usually attractive style. Rosette and Mary Allwood being among the more prominent.

Mr. C. Englemann, Saffron Walden, had an imposing display of Carnations arranged at the west end of the hall, Golden Ray, Beacon, Lady Northcliffe, White Perfection, May Day and Carola being all in fine condition. Empire Day, Princess Charming, Lucy, Pink Delight, Lady Meyer and Rex are all pink shades and quite beautiful in their way. Scarlet Carola, a sport from the original, was very fine.

Messrs. Whitelegg and Page, Chislehurst, showed a great variety of alpine in pans and pots, the group rich in Saxifragas and Sedums.

Messrs. T. S. Ware, Limited, Feltham, displayed a delightful lot of alpine plants in pans, showing the true winter character of these ever-interesting subjects. Some of the more important were *Androsace lactea* (white), *Rosmarinus prostrata* and *Potentilla Willmottæ*, all of which were in flower. *Saxifraga Boydii*, *Shortia galacifolia*, *Meconopsis Wallichii*, *Primula malacoides*, *Sarracenia purpurea* (very rich in colour), *Darlingtonia californica* (most interesting), *Lavandula pendula* (a rather distinct plant) and some fine rosettes of *Saxifraga longifolia* were among the best in a varied and good lot.

Messrs. Stuart Low and Co., Enfield, showed an admirable lot of Carnations, of which Lady Alington, Baroness de Brien, Carola, British Triumph, White Wonder, Rosette and Regal (mauve) were some of the more important. The group was admirably arranged and most effective.

Mr. W. J. Godfrey, Exmouth, had a capital lot of his new white Anemone-flowered Chrysanthemum Perfection. It is very pure, and excellent for cutting.

Mr. W. Lawrenson, Yarm-on-Tees, displayed some excellent Carnations, the new Snowstorm being superbly staged. Congress (crimson), R. F. Felton, Lady Meyer (pink) and Rose Pink Enchantress were other good varieties in an excellent group.

Colonel the Right Hon. M. Lockwood, C.V.O., M.P., Romford, Essex, had a grand lot of Chrysanthemum Mrs. Swinburne, a particularly good white. The plants were pot-grown and not more than 2 feet high.

Messrs. Peed and Sons, West Norwood, exhibited a group of Begonias of the Gloire de Lorraine section, also Patrie (of reddish rose hue).

Mr. A. F. Dutton, Iver, Bucks, showed his new Carnation Mrs. A. F. Dutton, which is of a delightful apple-blossom pink tone, as pleasing and beautiful as the colour shade suggests. It is an ideal Carnation for decoration.

The Manor House Nurseries, Limited, Cardiff, staged a variety of Chrysanthemums, mostly single-flowered.

Messrs. H. B. May and Sons, Edmonton, brought Cyclamen persicum in variety, Euphorbia (Poinsettia) pulcherrima major, Begonia Glory of Cincinnati, *Primula obconica* and *Centropogon lucyanus*, associated with Palms and Ferns. A rather attractive exhibit.

Messrs. William Cutbush and Sons, Highgate, N., had an excellent table of retarded Lilies, auratum, speciosum, rubrum and longiflorum in variety. Begonia Lady

Waterlow and the winter-flowering Heaths were all delightfully shown in groups. The crimson Polyantha Rose Jessie was most charming.

Mr. L. R. Russell, Richmond, staged a fine bank of Azalea indica in distinct varieties—*Mme. Petrick*, *Deutsche Perle* and *J. B. Veronne*, together with *Eurya latifolia* variegata and *Aucuba japonica* vera.

Mr. G. Reuthe, Keston, arranged a delightful lot of choice alpine in pots, many of great rarity. A pretty assortment of Nerines was also noted.

FLORAL COMMITTEE'S AWARDS.

Gold Medal.—Mr. Englemann, Saffron Walden, for Carnations.

Silver-gilt Flora Medal.—Mr. Burnett, Guernsey, for Carnations.

Silver-gilt Banksian Medal.—Messrs. Cutbush, Highgate, for Carnations and greenhouse plants.

Silver Flora Medals.—Mr. Lange, Hampton, for Begonias and Carnations; Colonel Lockwood for Chrysanthemums; Messrs. Stuart Low, Enfield, for Carnations; Mr. Russell, Richmond, for Azaleas, &c.; and Messrs. James Veitch and Sons, Limited, for Begonias, &c.

Silver Banksian Medals.—Messrs. Allwood, Hayward's Heath, for Carnations; the Rev. H. Buckston, Derby, for Cyclamen; Messrs. Ware for alpine; Messrs. Wells, Merstham, for Chrysanthemums and Carnations; Messrs. Young, Cheltenham, for Carnations, &c.; and Mr. Lawrenson, Yarm-on-Tees, for Carnations.

Bronze Flora Medal.—Messrs. May, Upper Edmonton, for Ferns and flowering plants.

ABERDEEN CHRYSANTHEMUM SHOW.

ALTHOUGH smaller in point of numbers than usual, the annual show of the Aberdeen Chrysanthemum Society, held in the Y.M.C.A. Hall, Aberdeen, on November 22 and 23, was a capital one, and it was agreed that on no previous occasion were some of the exhibits surpassed. Lord Provost Maitland opened the show. The leading prize, for a group of Chrysanthemums and other plants, went to Mr. Robert Begg, Garthdee, with a splendid exhibit, containing excellent plants of single and double Chrysanthemums, with other plants of capital quality. Mr. J. E. Davis, Ballathie, was second with another good group. His *Codiaeums* were an outstanding feature. Mr. Begg also won for six pots of Chrysanthemums, three pots of singles, three pots of decorative Chrysanthemums and one pot of decorative Chrysanthemum. Mr. F. Munro, Wellwood, was first for one specimen disbudded. Mr. Begg led for *Primula sinensis*. Mr. A. Reid, Durriss, won for Orchids, and Mr. A. Duncan, Rubislaw Den, took the first prize with winter-flowering Begonias. The cut flowers were of very fine quality, and Mr. J. E. Davis was first for six vases. For twelve Japanese, Mr. J. A. Grigor, Seapark, led. Mr. Grigor also having the best eighteen vases of decorative Chrysanthemums and the best twelve vases of singles. Mr. J. Petrie was first for nine vases of decorative. Another first-prize winner with Chrysanthemum blooms was Mr. D. McLean, Thornton Castle. An unusual class elsewhere, but always popular at Aberdeen, was that for twenty-four trusses of Christmas Roses, Mr. W. Milne, Corsindae, taking the first and second prizes. In other classes for cut flowers the winners were Mr. J. Petrie, Mr. A. Reid, Mr. A. Cumming and Mr. J. E. Davis. Fruit was a small class, but the quality was very fine. Mr. J. Dey was first for Grapes, Mr. C. Stuart for kitchen Apples, and Mr. J. Petrie for dessert Apples. Mr. J. Garden won for the collection of vegetables. Amateurs exhibited very well indeed, Mr. J. Davidson winning a good many prizes.

"EDINBURGH'S PARK AND OTHER TREES."

UNDER the above title Mr. A. D. Richardson, the secretary of the Scottish Horticultural Association, gave a most interesting address, illustrated with lantern slides, to the Edinburgh Field Naturalists' Society in the hall, George Street, Edinburgh, on November 27. Mr. Richardson gave an excellent account of the trees in the parks, gardens and streets of the city, and pointed out the best and most permanent town trees for the district. The lecture proved to be one of much interest to the members of the society.

NATIONAL CHRYSANTHEMUM SOCIETY.

THE last meeting of the present season of the floral committee of the above society was held at Essex Hall, Essex Street, Strand, London, W.C., on Monday last, December 2, at three o'clock in the afternoon. There was a good attendance of members, and quite a large number of novelties for so late in the season were submitted for adjudication. The committee still continues to observe a high standard of quality, and, as proof of this fact, the following varieties were honoured with a first-class certificate or a commendation, as mentioned in the case of each variety.

W. Head.—A large and attractive exhibition Japanese bloom, having broad reflexing petals of good length that build a full flower of considerable substance. Colour, bright rich golden yellow, with a paler reverse to the petals. First-class certificate to H. J. Jones' Nurseries, Limited, Ryecroft Nursery, Lewisham, S.E.

Arthur Pickard.—For so late in the flowering season this is a highly attractive bloom of good quality and of exhibition proportions. The petals are fairly broad and reflex in very even fashion, building a bloom of even form. Colour, light chestnut over yellow ground, with yellow reverse. First-class certificate to Messrs. Stredwick and Son, Silverhill Park, St. Leonards-on-Sea.

Miss A. Brooker.—An interesting and attractive decorative Japanese bloom, especially suited for market. The flower is of incurved Japanese form, about five inches in diameter. The petals are of medium breadth, building a full bloom, the lower portion of which is incurved and the upper portion reflexed, revealing the bright chestnut colour; the reverse is a dull gold colour. First-class certificate to Messrs. W. Wells and Co., Merstham, Surrey.



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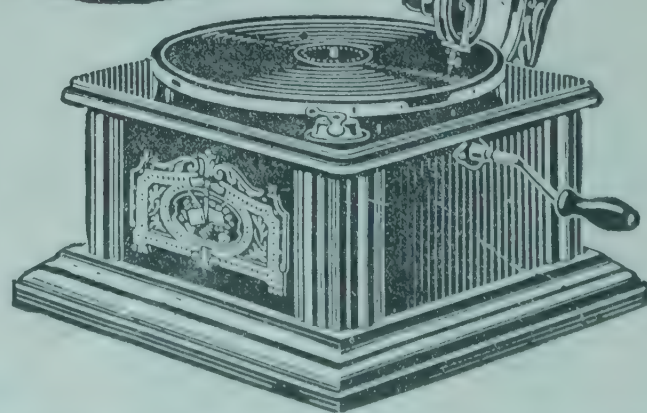
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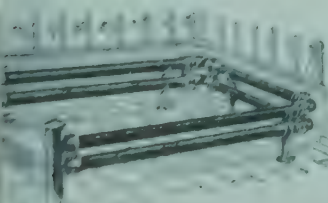
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Thorp's December Pink.—This is a distinct acquisition to the decorative or market Chrysanthemums of Japanese form. It is a full flower between 5 inches and 6 inches in diameter, the petals being of medium breadth, pleasingly reflexing. Colour, a beautiful tone of pink, with silvery white reverse. First-class certificate to Mr. H. W. Thorp, Durrington, Worthing.

Eric Wild.—One of the prettiest medium-sized singles of the present season; good either disbudded or in sprays. There are three rows of petals of medium width arranged in very regular fashion, building a single of ideal form. Colour, soft tone of pink, with neat white zone round yellow disc. First-class certificate to Mr. George Mileham, Emllyn House Gardens, Leatherhead.

Ruby.—A splendid type of decorative Japanese that should suit market-growers. The flowers are about five inches in diameter, having petals of medium width, neatly reflexing, building a bloom of good form. Colour, ruby crimson, with bronze reverse. Commended. From Mr. Walter Jinks, Thames Ditton.

Bronze Cheer.—This is a seedling from the well-known late-flowering variety Winter Cheer. The flowers are about three and a-half inches in diameter, with rather narrow petals, building a full bloom. Colour, golden bronze. Commended. From Mr. H. W. Thorp.

Marion.—A highly attractive large-flowered single rather more than four inches in diameter; the petals are rather broad and somewhat pointed, and are regularly arranged round a well-proportioned yellow disc. Colour, bright tone of deep rose. Commended. Also from Mr. Thorp.

Marguerite de Quincey.—Another large and attractive single, the blooms being about four inches in diameter. Petals medium to broad, regularly arranged round a rather bold yellow disc. Colour, bluish, with very faint white zone round disc. Commended. From Mr. G. Mileham.

The floral committee expressed a wish to see again a large, gracefully-built Japanese exhibition variety named Mrs. J. B. Riding. The petals are very long, and the colour may be described as primrose with a greenish centre.

The dates of the floral committee meetings for 1913 were provisionally fixed as follows: September 8 and 22, October 15 and 27, November 17 and 26, and December 8, at Essex Hall; and October 1 and November 5, at the Crystal Palace.

ANNUAL DINNER.

The annual dinner of this society may be regarded as a distinct success. The Venetian Chamber of the Holborn Restaurant was charmingly decorated with Chrysanthemums representing all types of the flower, and to the sub-committee entrusted with this work much credit is due. In the absence of Sir Albert K. Rollit, LL.D., D.C.L., the president of the society, through ill-health, the chair was occupied by Mr. Thomas Bevan, chairman of the executive committee, supported by 102 members and their friends, including many ladies. We noticed among those present Messrs. C. Harman Payne, D. B. Crane, J. H. Witty, E. F. Hawes, W. Howe, Norman Davis, W. Wells, Mr. Botham of the Crystal Palace, and many other well-known Chrysanthemum enthusiasts.

After the usual loyal and patriotic toast had been given and duly honoured, the chairman gave the toast "The National Chrysanthemum Society." He apologised for the absence of the president, who very much desired to be present, but who was kept indoors in consequence of ill-health and by the doctor's orders. In referring to the work accomplished by this society, the chairman said he had been attending its meetings for thirty years. He spoke of the time when in the early days growers thought there should be a national society, and how subsequently the old Stoke Newington Society in 1884 changed its name into the National Chrysanthemum Society. Flowers had changed very considerably since that time. He said there was room for Chrysanthemums of every description, both large and small, and now—referring to the new type of Anemone-centred single—he said we are seeing old faces in new sorts, an allusion to the similarity of the Anemone-centred single to the old-time large-flowered Anemone. In conclusion, he said "This is the one meeting the president *does* like to attend."

At this juncture the chief cups and medals were presented to the successful competitors. The Holmes Memorial Cups for Japanese and incurved blooms were presented respectively to Mr. Thomas Stevenson and Mr. G. J. Hunt. The first mentioned also secured the president's cup and other honours. Mr. Norman Davis was presented with the gold medal, given by Messrs. Clay and Son, for the best miscellaneous exhibit at the late Crystal Palace Show, and other fortunate winners were the recipients of medals of varying merit. Each recipient was greeted with enthusiastic cheers.

Mr. E. F. Hawes proposed the toast "The Donors of Special Prizes," but before proceeding with his remarks suggested a telegram be sent to Sir Albert K. Rollit regretting his absence through illness, and hoping for a speedy recovery. This was readily acquiesced in, and the telegram despatched forthwith. In an attractive speech each donor of prizes was eulogised, and the toast was enthusiastically received. Mr. R. J. Frogbrook responded.

Mr. D. B. Crane next proposed "The Exhibitors and Affiliated Societies." Reference was made to the excellence of the shows of the past season, the quality of the exhibits generally and specifically, and to the representative character of the displays made by exhibitors nowadays. The groups set up by the trade came in for a large share of praise, and exhibitors at the meetings of the floral committee were specially remembered. Leading exhibitors were also specially mentioned, and a reference to the broader and more comprehensive character of the shows held at present was made. The Dulwich Chrysanthemum Society were congratulated on again winning the Affiliated Societies' Challenge Trophy, and other competitors were urged to redouble their efforts to displace them. The toast was very warmly received. Mr. W. Wells, in a witty speech, replied at some length, saying that in connection with the affiliated societies' competition the difficulty was to get growers to part with their best blooms.

Other toasts, "The Ladies and Visitors," "The Chairman" and "The Press," were each most loyally and heartily proposed and received. An excellent musical programme was rendered under the direction of Mr. T. Bennet-Griffen, and contributed considerably to a very enjoyable evening.

OBITUARY.

HENRY PURSER.

MR. PURSER started his gardening career in the gardens of the Earl of Denbigh at Newnham Paddock, and from there was sent as head-gardener for the Hon. Wentworth Powis at Berwick Hall, near Shrewsbury, where he remained for thirty years. His next place was at Ravenhill, near Rugeley, Staffordshire, as head-gardener to the Right Hon. Lord Zouche. At the end of five years Ravenhill was let, and his Lordship offered Mr. Purser the position of head-gardener at his other estate, Barham Park, Sussex. This he accepted and remained there for thirteen years, from which he retired some few years ago on a pension kindly given by his Lordship. Mr. and Mrs. Purser have been living during their retirement in Shrewsbury, where he passed away in his eighty-second year on November 17. Mr. Purser was a man of a quiet and retiring disposition, most exact in all things, of few words, methodical to a degree, the essence of punctuality in all things, and respected and esteemed (indeed, treated as a friend by his employers) by all who had the privilege of his acquaintance.

DAVID LANDSBOROUGH, LL.D.

It is with regret that we chronicle the death, on November 22, of the Rev. David Landsborough, LL.D., of Kilmarnock, at the advanced age of eighty-six. Dr. Landsborough was Senior Minister of the Henderson United Free Church at Kilmarnock, but retired from the active duties of his pastorate in 1902. All his life Dr. Landsborough was deeply interested in scientific pursuits, a taste inherited from his father, who was a distinguished scientist. Molluscs and zoophytes, which he studied in early years, were followed by natural history, archæology and botany, the latter being his favourite study in his more mature years. He studied the botany of Ayrshire and took a warm interest in the Glenfield Ramblers, contributing many papers to that society, of which he was the first and only honorary president. He contributed a series of papers on the "Effects of Winter on Vegetation in Arran" to the Edinburgh Botanical Society, which elected him an Associate Fellow. In addition to these, his most noteworthy botanical papers were on "Pyrus Aria and its Varieties in Arran" and "Australian and Other Foreign Trees and Plants in the Island of Arran, all Unprotected," the latter being a most interesting record, of considerable service to gardeners in the West of Scotland. His services in other directions to science were recognised in a variety of ways, and he was highly esteemed as a careful observer and cultivator of plant-life.

The Christmas Number of "Country Life" contains, among other articles, an illustrated account of "Cliveden, Buckinghamshire"; "Turner at Oxford" (illustrated), by Hugh Stokes; "Photography and Painting" (illustrated), by Ward Muir; "Mr. Frank Brangwyn and His Art" (illustrated), by Jessie Leckie Herbertson; "An Indian Peasant's Livestock" (illustrated), by H. Kirkwood Gracey; "Notes on Sport in British East Africa," illustrated by Lionel Edwards, A.R.C.A., from photographs by Mr. Paul Rainey; "A Tale of the Past" (poem), by Colonel R. F. Meysey-Thompson; "The Heron and the Fishery"

(illustrated), by Dr. Francis Ward; "The Racing Season of 1912" (illustrated), by "Trenton"; "On the Need of Compulsory Registration"; "The Childhood of Animals" (illustrated), by A. E. Shipley, F.R.S.; "Experts on Turkey"; "The Fur Seals of the North Pacific.—I." (illustrated), by Hugh M. Smith; "Ski-ing Prospects in Switzerland" (illustrated); "Lesser Country House Gardens" (illustrated), by Arthur T. Bolton; "The Duke of Atholl's Highland Ponies" (illustrated).

TRADE NOTE.

THE SHEFFIELD HORTICULTURAL COMPANY, LIMITED. THIS is the title of a new horticultural firm established at the Silver Hill Nurseries, Ecclesall, Sheffield, under the able supervision of Mr. J. L. Edginton as managing director. Catalogues of Roses, Sweet Peas, alpine, hardy perennials, fruit trees, hardy shrubs, trees and climbers are being issued, and will be sent free on application as soon as ready. Mr. Edginton is making a strong point of the fact that he will at all times be pleased to give advice on the designing and planting of gardens. We wish him the success he so well deserves in his new undertaking.

** The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.



FROM HEADQUARTERS.

It is only to be expected that anything which has been steadily growing for seventy-five years should now have reached a high state of maturity.

It was in 1836 that the late Mr. James Carter published his first annual catalogue, which consisted of a single sheet, from 237, High Holborn. Ever since then the yearly catalogues have been steadily growing larger and larger, in a manner worthy of the seeds themselves, until now it has become the most wonderful and the largest catalogue devoted exclusively to seeds in the world.

About December 9th the new Carter's Annual entitled "Garden and Lawn," will be published. It is of nearly two pounds postal weight, and carries close upon 300 pages on art paper! It is profusely illustrated, chiefly with photographs taken by the firm's own staff of photographers, and completed in the Studios on the premises; but there are also photos. from all parts of the world.

The coveted volume opens fittingly with a page showing His Majesty King George inspecting our Japanese Garden Exhibit at the International Exhibition at Chelsea. The firm hold the Royal Warrant of His Majesty King George, Her Majesty Queen Alexandra, H.I.M. The German Emperor, also eleven other appointments to other Royal and Reigning Houses, which we believe to be a record in the industrial world.

An Art Supplement illustrates the unique Raynes Park establishment, justly regarded as one of the most perfect examples of what industrial buildings should be, and always open to visitors. We then have pages on the fascinating story of Testing, followed by beautiful pictures of Vegetables and Flowers.

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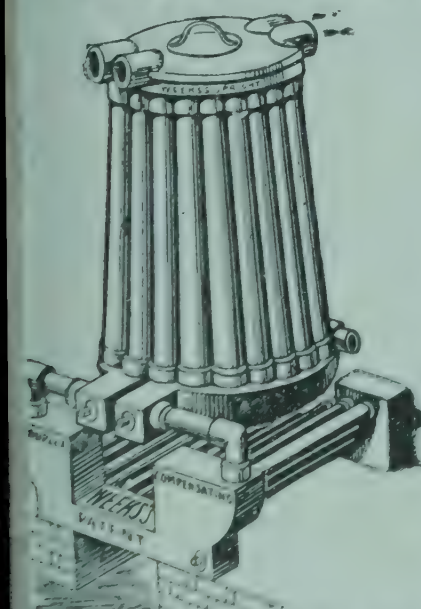
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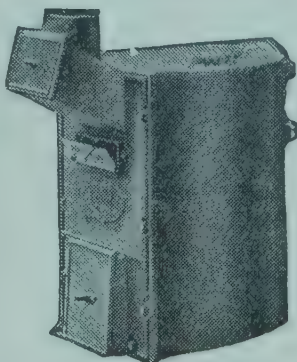
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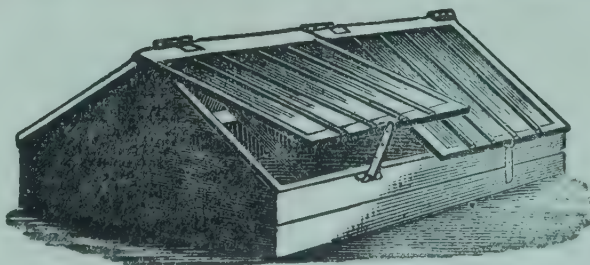
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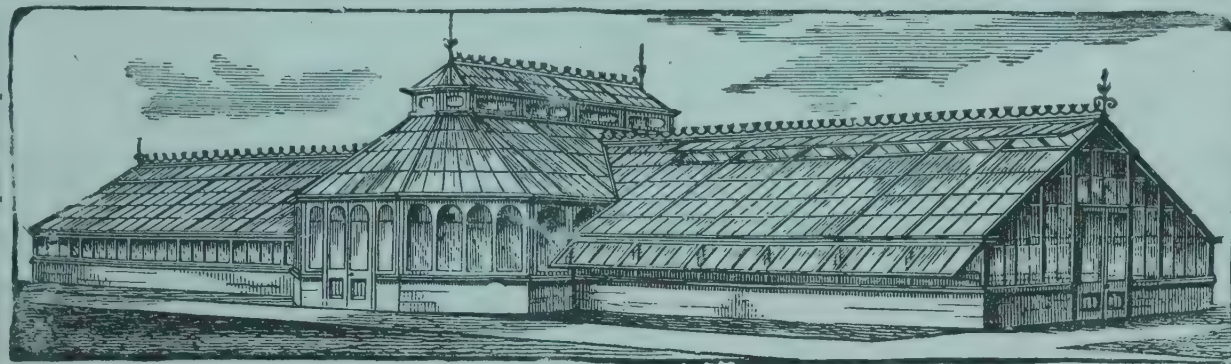
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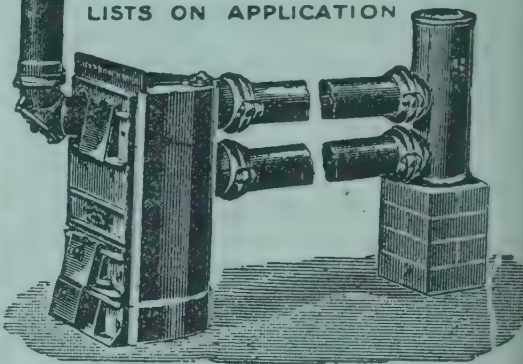
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ORCHARD AND WOODLAND

VOL. LXXVI.—No. 2143.

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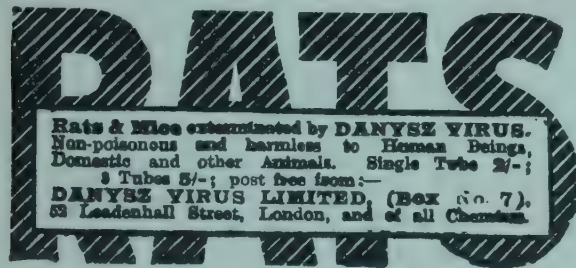
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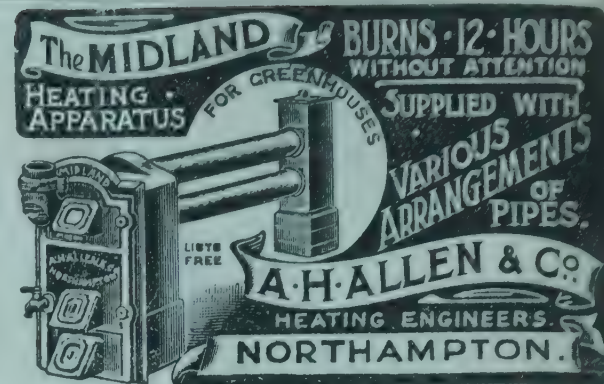
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THE GARDEN.

No. 2143.—VOL. LXXVI.

DECEMBER 14, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in **THE GARDEN**, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in **THE GARDEN** will alone be recognised as acceptance.

Office: 20, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Dates of Shows for Next Year.—We shall be glad if the secretaries of horticultural societies who have not already done so will send us the dates of their shows for next year, so that they can be included in the almanack that we are presenting with our Special New Year Number.

The Potato Crop in England and Wales.—According to the preliminary statement just issued by the Board of Agriculture, the total production of Potatoes in England and Wales is estimated at nearly 2,244,000 tons, which represents, on an area of 463,000 acres, a yield of 4·85 tons per acre, the lowest since the returns of produce were first collected in 1884. The worst return previously was 4·97 tons per acre in 1907.

Primula obconica in Glasgow.—Among the finest plants of this Primula that we have recently seen are those in some of the Glasgow parks. Mr. Thompson, who has charge of the Springburn Park, under Mr. James Whitton, the Superintendent of the Glasgow Parks, has a specially fine strain, to which it is evident much care is devoted. One could hardly find a poor one among the plants, and they surpass, or at least are fully equal to, some noted strains which have won prizes at prominent Scottish exhibitions.

The Florida Water Hyacinth.—This is the popular name of the well-known stove aquatic Eichornea crassipes. This plant floats freely upon the surface of the water without the roots being anchored in the soil. In warm countries, where this plant has been introduced by virtue of its interest and beauty, it has increased at such an enormous rate as to impede water traffic and choke waterways. As a stove aquatic it is a plant of great beauty; its many flower-racemes in violet blue make it a charming subject for a warm Water Lily tank.

The Orange-berried Holly.—A correspondent sends us a Holly shoot laden with berries, which, instead of being of the typical yellow-fruited kind, are orange flushed with red. Plants bearing fruits of this character may often be noted in a batch raised from seeds of the yellow-berried Holly (Ilex Aquifolium fructu-luteo), while such a variety has been given the varietal name of fructu-aurantiaca and the popular name which heads this note. The yellow-berried plant has been known for several centuries, and old gardening books inform us that it was found wild in a wood near Wardour Castle in Wiltshire, and also at Wiston in Suffolk. A form with white berries has been described, but it is doubtful whether it is now in cultivation.

The Shrewsbury Show Secretaries.—The many supporters of the Shrewsbury Show will learn with regret of the resignation of the hon. secretaries, Messrs. Adnitt and Naunton, who have acted in that capacity since the Shropshire Horticultural Society was established thirty-eight years ago. The Shrewsbury Show is one of the largest of its kind in the country, and since it was first held the society has granted donations amounting to nearly fourteen thousand pounds to the Shrewsbury Corporation for the improvement of the show grounds, public buildings and institutions.

New Zealand Daffodils in London.—We understand that there is a possibility of all the best and newest Daffodils that have been raised in New Zealand, and some of which were commented upon by Mr. F. Herbert Chapman on page 598 of our issue for November 30, being grown in this country and exhibited in London. This will enable us to judge of their merits and to compare them with the latest productions of raisers in this country. We are not at liberty to divulge details of the proposed scheme at present, but, should it mature, it will be of considerable interest and value to Daffodil-lovers.

A Noble Tropical Plant.—For the last two months Brownea Crawfordii has been the centre of attraction in the Palm House at Kew, for it has carried a large number of inflorescences of bright scarlet flowers. The various species of Brownea are natives of Venezuela and Colombia, but several hybrids have been raised, and of these B. Crawfordii is not only one of the best, but one of the most beautiful members of the whole family. Forming a tree with a wide-spreading head, it produces long, pinnate leaves and terminal heads of flowers. It is only in a large house with a tropical temperature that the plant does itself justice.

Three Good Red Currants.—These useful fruits are extensively cultivated in both large and small gardens, but the best forms are not always selected. We have found that Raby Castle, La Versaillaise and La Constante are a trio of the best, and can be procured for a moderate outlay. The first may be described as a good one for general purposes; the second can be employed as a cordon, and if planted on a north wall or border the supply of Currants will be prolonged. The berries are large, and the bunches are produced in abundance. La Constante has no equal as a late variety, the big red bunches remaining in excellent condition for several weeks after other Currants are finished. Now is a good time to plant all small fruits. In town gardens sparrows often do much damage to Red Currant and Gooseberry bushes at this season by eating the buds, and where trouble of this kind is likely to occur some old fish netting should be spread over them.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Injury from Chrysanthemum Rust.—I should like to ask if any of your readers have felt any ill-effects from the Chrysanthemum rust? I and my foreman were arranging groups of standards in the conservatory, and the day following we were both swollen to an alarming degree on all exposed parts of the body. My medical adviser diagnosed it as uraturia, a mild form of blood-poisoning; and he thinks, too, that it was probably set up by the Chrysanthemum rust. No pain accompanied it, but severe irritation.—FRANK W. SARGEANT.

A Beautiful Berried Shrub.—We have in *Coriaria terminalis* a shrubby plant of some beauty and distinctness, owing its principal charms to its elegant growth, its autumn berries and the colouring of its autumnal leaves, the three combined rendering this *Coriaria* a plant of some attraction for places where it will fruit freely. In cold situations

ease with which *C. longiflorus* can be grown in the alpine garden may be realised when it is stated that the group shown in the accompanying illustration consisted, four years ago, of three small corms, which have remained untouched in their present position in very ordinary soil, consisting of heavy loam, road grit and a small quantity of leaf-mould; aspect, full south.—REGINALD A. MALBY.

Fragrance in Chrysanthemums.—I am much interested in the references to the single-flowered Chrysanthemum Eric Harvey in a "Note of the Week," issue October 26, and again on page 598, November 30. The variety in question is stated to be very fragrant, which is a step in the right direction. Probably the variety your correspondent C. Turner refers to is Ladysmith. The old hirsute variety, Mrs. Alpheus Hardy, was the sweetest-scented Chrysanthemum I ever grew. Another hirsute variety, Louis Boehler, is also fragrant. Several other sorts, not now in cultivation, were very fragrant. The newer one, Mrs. G. Hemming, a large Japanese, is very fragrant,

with the added virtue of fragrance is sure to become popular. The flower, from the description in a "Note of the Week," October 26, *re* Eric Harvey, I should think is somewhat similar in colour, and in an early issue I shall hope to hear of others possessing this hitherto unknown virtue.—A. E. BRADY

Cercidiphyllum japonicum in the United States.—The reference to *Cercidiphyllum japonicum* on page 574 of THE GARDEN for November 16 leads me to report that this species makes a first-rate tree in Massachusetts. We have a number of beautiful specimens growing in the College grounds, and there are others in the town. In "Bailey's Cyclopædia of Horticulture" this species is said sometimes to reach 100 feet in height; but this must be in Japan, for I feel sure there are no such specimens in America. It colours very nicely here in the autumn, but does not compare with the Japanese Maples nor with our native American Maples, nor, indeed, with many other of our American trees and shrubs.—F. A. WAUGH.

Snow and the Germination of Seeds.—The recent snowfall and the near approach of the seed-sowing time induces one to ask for the experience of others respecting the hastening of germination in certain seeds by a covering of snow, and to mention one or two things regarding this. It will be observed that in early spring, immediately after a fall of snow, many seedlings of hardy plants—perennial, biennial and annual—appear. In the case also of certain seeds sown in pots, pans or boxes, if they are covered with snow and this allowed to remain on for a few days before it melts, the germination of these seeds appears to be hastened. This is particularly the case with seeds which are slow or irregular in their germination, and it has long been the practice of certain raisers of Auriculas from seeds to take advantage of this when suitable weather occurs. I have tested this, and have found that the germination of Auriculas and other Primulas is really hastened by this covering of snow. It appears to me that this practice is specially useful with seeds which are usually very slow. The Gentians and some of the awned Anemones are instances. Perhaps others may add their quota of experience.—S. ARNOTT.

Dinner-table Decorations.—At all the principal towns throughout the country there are classes provided for dinner-table decorations. Where the flowers used are restricted to Carnations, Roses, Chrysanthemums, Narcissi and Tulips, with any kind of foliage, and a maximum height is given which must not be exceeded, the competitors are placed on a fairly equal footing. This is never more clearly defined than in the case of Sweet Pea tables. I hold that all competitors should be given as wide a range as possible in the matter of dinner-table decorations, but I think that committees and those who frame schedules should stipulate that spaces be left on the tables for the large plates at least. Often enough one sees the whole of the table covered—very charmingly, too, as regards the floral designs—but no space is left for plates. I do not intend going into the merits of high *versus* low decorations, on account of taking up too much valuable space, but would simply say that I favour low designs which are graceful and light and not necessarily squat in appearance, and plain glass vases for the flowers to be placed in. One large plate for each diner should be placed in position on the table, but no glasses, knives, forks, nor spoons. I am quite sure that inexperienced decorators would gain a clearer insight into the manner in which a table for diners should be furnished with flowers and foliage.—G. G.



CROCUS LONGIFLORUS, A BEAUTIFUL AUTUMN-FLOWERING SPECIES, IN THE ROCK GARDEN.

it seems hopeless to expect it to fruit; at least, the writer has tried it for seven years or so in succession in a cool, though not cold place without being favoured with any fruit. In warmer positions, however, it gives handsome, arching branches, bearing at their summit clusters of bright yellow, Currant-like fruits in August, while later the foliage dies off a good red.—S. A.

A Beautiful Autumn Crocus.—One of the brightest patches of colour in my garden at the middle of November was *Crocus longiflorus*. At the time of writing it was in its full glory of rosy lilac, and when a warm gleam of sunlight pierced the smoke-laden air, the rich orange stigmata gleamed within the lovely chalice rising from the dark soil, accompanied to about half their height by the grass-like foliage. While in general aspect the *Crocus* is not unlike *C. speciosus*, it is dwarfer and more refined, both in shape and colouring, while *C. speciosus* generally flowers about September and early October, and is, so far as I have grown it, unaccompanied by any foliage. The

and I have for many years noticed that the purple, violet and amaranth coloured varieties are more fragrant than any others. When the sun shines on the blooms is the time when their fragrance is most perceived, and more single-flowered varieties than those of any other section are sweet-scented.—G. GARNER.

— In response to your invitation in the note under "Fragrance in Chrysanthemums," November 30, I may say that early in the spring, having added single varieties to my small collection, one of these named Good Hope, a deep puce-rose coloured variety with a white zone circling a bold yellow disc, was most pleasingly fragrant. My friends said it was like Honeysuckle, only more "almondy." We first noticed the perfume indoors in blooms in a cut state with other flowers. It was so sweet and agreeable that we sought out what it could be, never dreaming it was the Chrysanthemum; we found it was, however. The flower, owing, I think, to the white zone, was most attractive, and always invited attention, and

How to Exterminate Moles.—Your correspondent H. C. Wood, page 598, issue November 30, gives some very useful hints on this subject. It may be interesting and useful to add that moles have their regular times for feeding, namely, at six o'clock and nine o'clock in the morning, again at noon, at three o'clock in the afternoon, and at six o'clock and at sunset. If one waits patiently about six yards away from the last-made hillock one may see the new one rising, and when it is nearly complete he should step up carefully and dig out the mole, treading down the newly-made run at the same time. Moles generally have their home in a dry bank, and from it make a main run or tunnel to the feeding-ground. The trap should be set in this main run.—B.

Teucrium fruticans.—Although this evergreen shrub is not hardy enough to stand uninjured through a winter of ordinary severity in the Midlands, it thrives excellently in Devonshire, Cornwall and South Wales in the open ground, while about London it gives very good results when planted against a wall. Belonging to the Sage family, it does not show any marked resemblance, except in the formation of its flowers and by its square branches, to any of the Salvias, for its woody shoots are long and slender and, when young, covered with a dense white felt. The ovate leaves are similarly covered on the under surface, and are greyish green above. The flowering season is a very prolonged one, for it extends from early summer until the approach of winter, the lavender or bluish flowers being borne from the leaf-axils near the points of the branches. No difficulty need be experienced in its cultivation, for, providing climatic conditions are favourable, it thrives in any good garden soil. Cuttings may be rooted with ease in sandy soil in a close frame during the summer.—D.

The Gargano Bellflower.—This is *Campanula garganica*, which should be represented in every garden in one or other of its forms. It is more suitable for the rockery than for the border, although it may be cultivated in the latter near the front, or, where there are rock edgings, over these. The different forms all make low, trailing plants of neat foliage, profusely covered for a long time in summer with pleasing open blue flowers. Trailing over the rocks and stones of the rockery they are exceedingly pleasing. *C. garganica* itself has charming glossy, neatly notched leaves and good blue flowers, and is a capital front-of-the-border or rockery subject. There is also a pretty white variety of this named *C. g. alba*. A favourite form is *C. g. hirsuta*, which has pleasing greyish, downy foliage and delightful open flowers of light blue with a white centre. It is probably the best of the Gargano Bellflowers. There is also a white variety of this called *C. g. hirsuta alba*. *C. garganica* and its varieties are easily grown in light soil, and flower more freely and last longer in partial shade than in sun.—S. A.

FORTHCOMING EVENTS.

December 16. — National Chrysanthemum Society's Executive Committee Meeting at Carr's Restaurant, Strand, at 7 p.m.
December 17.—Royal Horticultural Society's Committee Meeting (no exhibition).
December 19.—Linnean Society's Meeting.
December 30.—Hereford Fruit Show (two days).
January 7, 1913.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster, S.W.

GARDENING ACROSTICS.

AS outdoor work is necessarily more limited in winter than in the other seasons of the year, it has been suggested that some of our readers might like to take part in an acrostic competition as a useful and profitable substitute for their usual activities in other directions.

Accordingly we propose to publish, from December 14 to February 1 inclusive, a series of eight double acrostics, each of which will relate entirely to gardening or simple botany. As a slight incentive we offer three prizes, of the value of £3, £2 and £1 respectively, which, at the close of the competition, will be awarded to the successful competitors under the following conditions:

1. Solutions must be sent to the Editor at 20, Tavistock Street, Covent Garden, London, W.C., within a week of the date of issue in which the acrostic appears; thus, solutions for that in the paper of December 14 must be received on or before December 21.
2. Each solution must be accompanied by the sender's name and address, and, if it is thought desirable, a *nom de plume* for publication as well.
3. Envelopes must be plainly marked in the left-hand corner "Acrostic."
4. The correct solution of each acrostic will be published weekly in due course, together with a list of all those who have sent the right answers. N.B.—We then propose to give, where necessary, explanatory notes and references to the more difficult "lights" in order to make the acrostics as useful and instructive as possible.
5. In all cases the Editor's decision must be final.
6. If more than one competitor has sent in correct solutions to all the acrostics, the prize-money will be divided on the following lines: If two, the money for the first and second will be added together and then divided; if three or more, the whole of it will be added together and then divided equally among the successful competitors. The second and third prizes will be similarly dealt with, supposing similar circumstances should arise with regard to them.
7. The names of the prize-winners will be published in THE GARDEN of February 15, 1913.

EXAMPLE OF A DOUBLE ACROSTIC.

My first is found in my last, and with it makes my whole.

1. Contemporary with the Almond and the Vine,
I have been an inhabitant of the fruit garden from time immemorial.
2. The Woodbine in a Latin dress.
3. I make baskets, and sometimes divining-rods.
4. An old-fashioned Cheshire name of the Plantain.
5. Green I am bitter and tough—white I am crisp and mild.
6. The Rose Bay.

SOLUTION: "FLOWER GARDEN."

* 1. F	I	G
2. L	ONICER	A
† 3. O	SIE	R
‡ 4. W	AYBRE	D
5. E	NDIV	E
6. R	HODODENDRO	N

EXPLANATORY NOTES.

* In "Johnson's History of English Gardening," pages 3, 16 and 17, it is mentioned as a garden

fruit in Jacob's time. † "Folkard's Plant Lore," page 113. Osiers are used as divining-rods by some Eastern nations. ‡ "English Plant Names," by Britten and Holland. Waybred (spelt in various ways) is a common local name for the Plantain, especially in Cheshire.

DOUBLE ACROSTIC No. 1.

My firsts: *The country of new plants.*

My finals: *The glory of an autumn border.*

My whole: *A much-developed annual. First made by Nature in the East, but now by man in the West.*

1. Famous in Miller's day for its garden, now for its show.
2. When I am a gay garden flower, I am an annual; but when I am eaten, I am a perennial.
3. I look a wee bit like a *Gladiolus*. I am, anyhow, much more beautiful than I was twenty-five years ago. The contents of my seed-pods suggest the name you seek.
4. The name a botanist gives to that part of a stem whence leaves spring.
5. I love the damp when living, and I can keep you from it when dead.

The solution to the above, with explanatory notes and the names of those who have sent correct solutions, will be published in our issue dated December 28.

CULTURAL HINTS ON NEW OR RARE PLANTS.

ALPINES.

Saxifraga apiculata alba.—This plant needs no recommendation beyond the fact that it is a valuable white sport from a plant which everybody admires. With all its attributes of vigour and free flowering, typical of the original, it is destined for great popularity. Valuable alike for rock garden and alpine-house, it is a plant to grow. Easily increased by division.

Haberlea rhodopensis virginalis is considered one of the choicest of alpine gems for flowering in May and early June. The plant is a lover of cool rocks and a sequestered spot, and, while detesting much lime, delights in sandy peat and leaf-soil. Moisture, too, should be liberally supplied. In effect it is a miniature white-flowered *Streptocarpus*. Increased by division and seeds, when procurable.

Anemone nemorosa Allenii.—Those who know and prize the beautiful *Anemone robinsoniana* will be pleased to know that this is a far superior variety; one, moreover, that will luxuriate in rich, moist soils, and give a good account of itself when the time for flowering comes round. The plant is not a generous seeder, but may be divided when established. Plant now, burying the roots 4 inches deep.

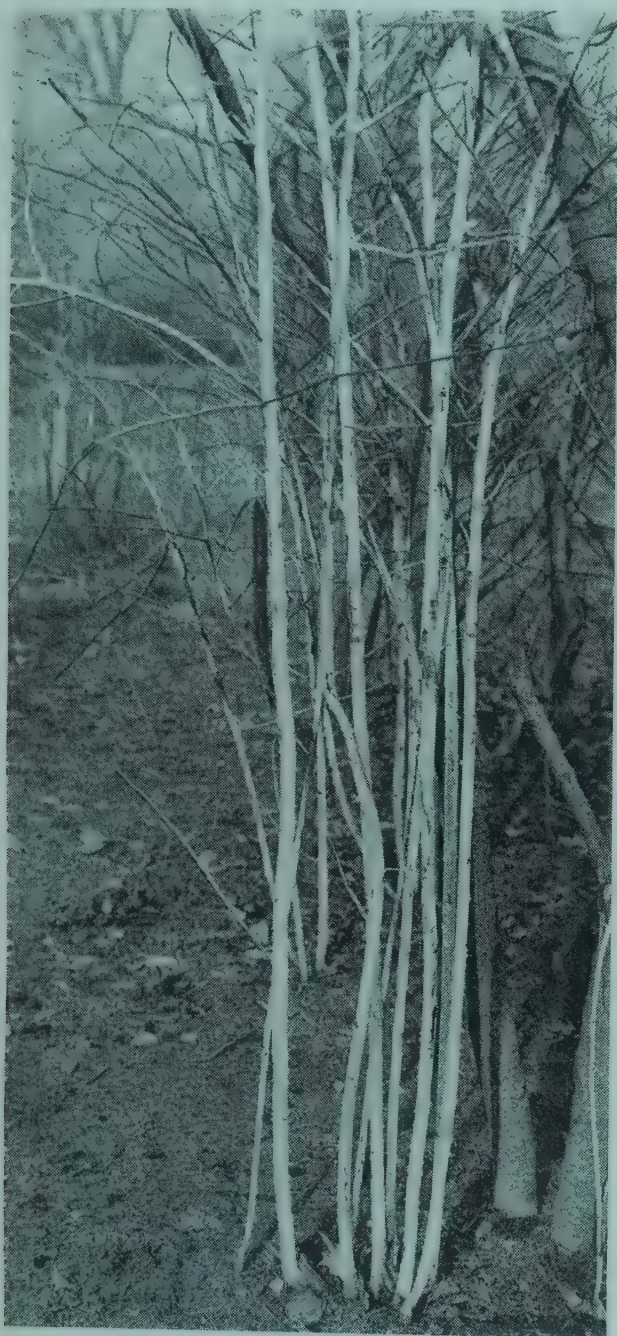
Wahlenbergia vincaeflora.—Lovers of the choicest plants will welcome this elegant-looking subject with its never-ending array of gentian blue flowers on frail stems 15 inches or so high. The plant is in flower for weeks. I would suggest a protecting crevice for it in the rock garden, with a deep root-run of peaty or leafy loam. Seeds should be looked for as a good means of increase. It flowers from June onwards. Plant in spring.

(To be continued.)

TREES AND SHRUBS.

ORNAMENTAL BRAMBLES FOR WINTER EFFECT.

PLANT collectors in China during recent years have enriched our gardens by the introduction of many new trees and shrubs. Prominent among these are a considerable number of Rubi or Brambles. Mr. E. H. Wilson during his three expeditions collected seeds of fifty species and varieties. Exactly how many of these will



A NEW FORM OF THE WHITE-WASHED BRAMBLE (RUBUS BIFLORUS QUINQUEFLORUS).

find a permanent home in our gardens it is difficult to say at present, but at least ten or twelve species already give evidence of becoming popular.

The different species and varieties vary very much in growth, foliage and appearance generally. Several form large bushes with stout stems up to 12 feet or 15 feet in height; others produce long, slender, trailing shoots. Their principal value in gardens lies in the ornamental foliage and attractive stems. One or two of the better fruiting kinds, though in themselves not superior to our common Bramble, yet may prove of considerable value in the hands of the hybridist. The three most

noteworthy at present in this respect are *Rubus adenophorus*, *R. biflorus quinqueflorus* (see illustration), and *R. kuntzeanus*.

For Pillars and Pergolas their value and uses in the garden are considerable and varied. Those with long, slender, trailing shoots are suitable for pergolas, arches and pillars, particularly several of the evergreen species. The species with ornamental stems or attractive foliage are valuable for the shrubbery borders, beds in the pleasure grounds, or groups in open spaces in view of the woodland walks. When planting the white-barked Brambles, to get the best effect at least eight or ten plants should be grouped together. A selection with attractive stems in winter are *R. biflorus* and the variety *quinqueflorus*, *R. giraldianus* (see illustration), *R. lasiostylus*, *R. mesogæus* and *R. thibetanus* (Veitchii). Evergreen species suitable for clothing pergolas, arches, verandahs and pillars include *R. bambusarum*, *R. flagelliflorus*, *R. Parkerii*, *R. playfairianus* and *R. Swinhoei*. The best of the deciduous species with ornamental foliage are *R. giraldianus* and *R. thibetanus* (Veitchii).

Cultivation.—Though their cultivation in the ordinary way presents no difficulties, these Chinese Brambles respond readily to good culture of the soil. A rich loamy soil, well worked, and a mulching of decayed manure increase considerably the vigour and beauty of the plants. With the deciduous species, particularly those with ornamental stems, it is very desirable to cut out the old growths in autumn, to expose the full beauty of the previous summer shoots. Layering the shoots forms a ready means of increase, and those species which fruit freely may be propagated from seeds.

RHODODENDRON RUBIGINOSUM

ABOUT twenty years ago this and several other Rhododendrons were introduced by Messrs. Veitch from Western China, and it was soon seen that they were likely to prove useful additions to the various species which were already in cultivation. Growing about 3 feet high, *R. rubiginosum* is distinguished by its reddish brown stems and by its leaves, which are from 2 inches to 3 inches long, being covered with small, rounded, brown scales. The flowers are 1 inch to 1½ inches across, and are borne in small terminal heads. Their colour is rosy red, and when at their best they make a very bright display. It was one of the discoveries of the Abbé Delavay, and is said to be common on the Tsangshan Mountains in Yunnan at elevations varying between 6,000 feet and 7,000 feet. A companion plant which appeared about the same time from the same region is *R. yunnanense*. This often grows about the same height, though it may become much taller, and bears white Azalea-like flowers,

which are marked with red on the upper petals. Both plants are desirable sorts to grow in gardens where the dwarfier kinds of Rhododendron are encouraged. Where collections of such species do exist, they provide a never-ending source of enjoyment, for all are beautiful, and a very wide range of habit and variableness in flower is exhibited. D.

THE ROSE GARDEN.

NOTES ON THE NEWER ROSES.

TEAS FOR EXHIBITION.

(Continued from page 612.)

Mrs. Herbert Hawksworth (Alex. Dickson and Sons, 1912).—As seen growing at Newtownards this July I was very much struck with the beauty of this Rose. It is a flower of much substance and many petals, of a more globular form than is generally associated with a Tea Rose. It is pure white in colour, especially in the fully-developed flower, and when better known will be in much request among exhibitors, as weight, quality and perfection of shape are marked characteristics. It is a good grower, and the plants I saw of it carried plenty of flowers. It is sweetly scented.

Mrs. Hubert Taylor (Alex. Dickson and Sons, 1909).—This has been frequently exhibited this season by amateur and professional alike. A pale blush in colour, fading to white at the edge of the petals, yet it is distinct alike in colour and shape, although so reminiscent of the old



THE SLENDER WHITE STEMS OF RUBUS GIRALDIANUS.

Mme. Cusin that I have heard it described as a sport of that variety. I do not think, however, it is so, as the growth is very unlike it, being much stronger, and the leaves are frequently seven in number. It was awarded the gold medal at Luton in 1909, and is a good, reliable Rose.

Mrs. Sophia Neate (S. Bide and Sons, 1909).—This can hardly be said to have been frequently exhibited, but a plant in my garden this year produced such excellent flowers that I am tempted to include it here, at any rate as a variety worth trying. Its flowers are salmon pink in colour, of good shape when well grown, and the plant is of quite good habit.

Nita Weldon (Alex. Dickson and Sons, 1909).—This Rose has improved immensely with me. The first year I had it I was inclined to label it decorative or garden only; but I have altered my opinion of it, and useful as it is for these purposes, it cannot be ignored by the exhibitor. It found its way into a good many boxes this year. It is a pretty flower and gained the gold medal at the Royal Botanic Show in 1908; good habit and very free-flowering.

Recuerdo de Antonio Peluffo (Soupert et Notting, 1911).—The only new Tea Rose of Continental raising that I feel justified in recommending for exhibition purposes. It is, I should say, of Mme. Constant Soupert parentage; but this is pure surmise on my part. The four plants I have had of it this season have given me some excellent flowers, considering they were only grafted. It is pale yellow, with a Picotee pink edge to the petals, requires protection from wet, but it makes a large, bold flower of distinct merit.

W. R. Smith (Smith, 1908).—This, I believe, is an American-raised seedling, a very fine grower that produces large flowers, nearly white, tinged blush on the outside of the petal, that will, however, come split "sometimes." This is its only fault, but it admittedly is a serious one. Personally, however fine a bloom was as regards colour and size, if it had a split I should hesitate to stage it. Still, that is not everyone's opinion, otherwise we should not find so many split flowers as we do in looking round the exhibition boxes of the trade and amateur alike. Still, I am sure there are less than there used to be, and I put that down entirely to the fact that a feature of most of the new Roses is that they produce so many more perfect flowers per plant than the older varieties. It is a coincidence only that I have to close my notes on exhibition Roses with a variety that does sin in this respect, in that a certain percentage, and not a small one, of its flowers come split. If they did not, the Rose under notice would be entitled to be placed very high in the list of the newer Roses.

Next week I hope to commence my notes on the newer decorative, climbing and other Roses, which are now so highly appreciated for garden decoration and for cutting. These Roses have been wonderfully improved in recent years, and there are plenty of good varieties available.

Southampton.

HERBERT E. MOLYNEUX.

ROCK AND WATER GARDEN.

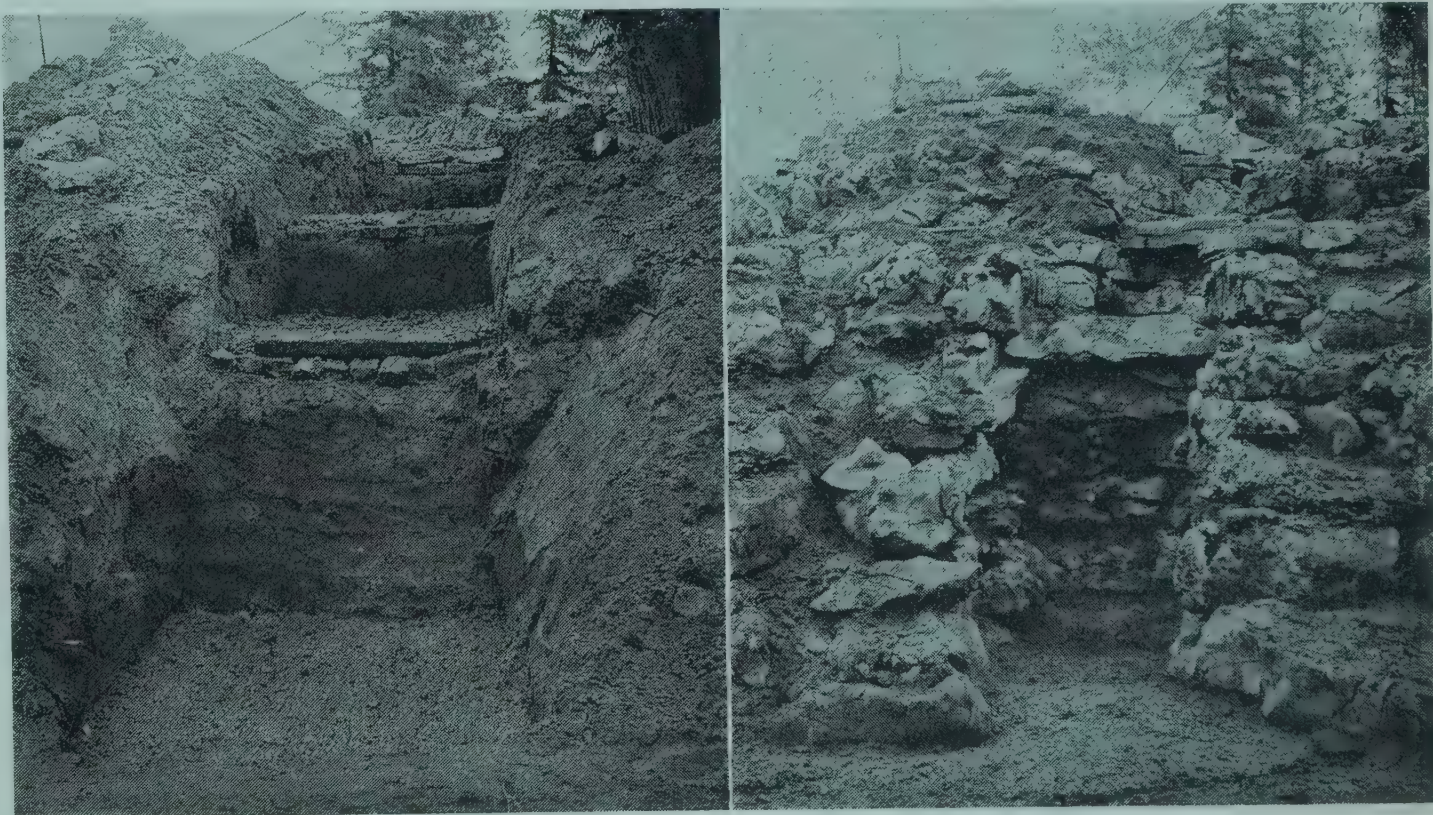
ROCK GARDENS IN THE MAKING.

(Continued from page 613.)

Soils for Larger Areas.—In the last chapter I had something to say concerning soils and crevices and the importance of having all such well charged as the work proceeds, and in a concluding word urged a freer use of grit and finely-pulverised rock for all high alpine of the tufted class. These are those which for the most part bejewel the rock faces of the earth, and these are the things which we should endeavour to imitate in our gardens. But, after all, it is but a phase of Nature's work, albeit an important one, and there are others demanding attention and study. I refer to the plants more suitable for larger areas, for colonising on slope or miniature ravine, and those freer-growing subjects, such as many of the hybrid Phloxes, Bell-flowers, Primulas and others that, so far as they inhabit Nature's rock gardens at all, have a

assuming always that the writer has himself studied the subject—should play the part of the finger-post, the operator doing his share, as already noted. The practical-minded writer will, however, be able to direct pretty clearly by citing some of

The Object-lessons of the Garden Itself. For example, the Phlox, Campanula, Primula or Saxifraga that has demonstrated its complete happiness, freedom of growth, flowering and hardiness when grown on the fringes of the choice border, or as a carpeter to something else, is not the plant we need take into the rock garden to starve; common-sense alone should dictate that we give it a liberal fare. Yet it is surprising how often such teaching is ignored. A large number of the silvery Rockfoils are so much at home on the so-called "flat rockery," or even in touch with fat garden soils, that they appear indifferent to that class of soil upon which they are found in Nature, and which, after all, might prove to be but the merest circumstance to which the plants have adapted themselves through the centuries. The



THE DRIPPING WELL IN THE ROCK GARDEN AT KEW HAS BEEN REPLACED BY A SERIES OF MINIATURE CASCADES. THE LEFT OF THE ILLUSTRATION SHOWS THE ALTERATION IN PROGRESS, AND THE RIGHT SHOWS THE WORK NEARLY COMPLETED.

preference rather for the richer pasture soils of the uplands than for higher altitudes and rocks alone. For such as these we may, without hesitation, prepare a greater feast, giving them a foot or 15 inches of rock-charged soil, leaf-mould it may be occasionally, or even manure of a kind—that type of it from which all insect-life has been eliminated by heat, and which is capable of being rubbed through a fine-meshed sieve by the hand.

The Habitats of Many Mountain Plants are, however, as varied as the plants themselves; hence no hard-and-fast rule can be laid down. Rather should the gardener study the conditions of the plant in its wild state, and, with such knowledge acting as guide, counsellor and friend, broaden and deepen it by experiment and observation. In these, as in other matters, there is nothing like the school of experience, and the lessons learnt therein will, I am fully persuaded, sink far more deeply into the mind of the earnest student than the gleanings from columns of text. The text-books—

Cotyledon Saxifrages, the Aizoons and others of the silvery set are instances of this soil indifference, these growing well and flowering freely in cool, almost pure sand, heavy, clayey loam, and on rocky dry slopes where the soil is chiefly old mortar and rubble. Generally, however, the highest encrusted development has been noticed where the plants were associated with limy soils. Hence there need be no slavish imitation of Nature, remembering always that we garden for gardening's sake, and to get the most out of the material and conditions within our reach.

The Bog-inhabiting Primulas of the Himalaya, and those others of the Swiss and Tyrolean Alps, afford instances of the impracticability of laying down hard-and-fast rules of culture. Moisture, or those near equivalents shade or rich soils, are essential to the former, while moisture—the constant moisture of the bog—might prove harmful to the others. If, however, we take such Primulas as *marginata*, *viscosa*, *intermedia* and its rather

numerous following, we shall find these greatly benefited not only by rich soils, but by that frequent division which also ensures in the subsequent replanting a re-burying of the stem, which in turn promotes a renewed root activity near to the rosettes of leaves. In Nature the constantly-accruing *débris* from the higher slopes acting as a mulch is the equivalent of the deeper planting, and is the more important to those types or species which incline to thrust their stems out of the earth. Those that do this perish at their bases in proportionate degree, the root-fibres being, given certain conditions, more or less an annual production. A phase in rock garden construction not yet touched upon is

The Miniature Cascade, which, while adding a distinctive feature, will also permit of the inclusion of a variety of plants not possible otherwise. That shown in the illustration on page 625 will give an idea of what is meant, the pictures side by side showing the start and the nearly finished work. The example in question

A YEAR OLD ROCK GARDEN.

A YEAR ago the ground on which stands the rock garden, a corner of which is shown in the illustration, was flat, uninteresting and weed-bestrewn. It was a narrow strip in an unmade garden. With pencil and paper a little sketch of winding paths, raised mounds and dry, stony water-courses was drawn out, attention being directed to the proper curves of the paths, avoiding any straight or formal lines. With no natural facilities for imitating mountain scenery, the plan adopted was first to trench the ground, then to collect all the stones from other parts of the garden, pile them in heaps where height was wanted, and dig out the paths as deeply as the lie of the ground allowed, using the level frequently to avoid depressions. The earth taken from the paths helped to raise the mounds, and more earth was added till they were sufficiently high. Then came the placing of the rocks, perhaps the most fascinating part of the undertaking, and requiring no little strength

THE FLOWER GARDEN.

SOME FACTS ABOUT THE TULIP MANIA.

(1634 — 1637.)

(Continued from page 615.)

I HAVE dealt in my first article with the apocryphal tales; the curious bargains that were sometimes made between buyer and seller for valuable bulbs; and the contributory causes, which were mainly two, viz., the keenness of the rich Dutch themselves to have the very best collections possible, and the long-continued demand from Paris for the rarest varieties to enable the young gallants there to make suitable offerings to their lady friends. I now come to the most interesting question of how sales were conducted during the period when the mania was at its height; for it must not be supposed, as it easily might be, that buying and selling were then the simple and ordinary processes with which everyone is familiar. When the mania really broke out in full force, such was the mad rush of everyone (nobles and chimney-sweeps, dames of high degree and serving-maids, weavers and learned men) to take part in the huge gamble that special provisions had to be made in order that business might be carried on with some sort of seemliness and order. In the mania area proper the usual avocations of the people were laid aside, and their whole time and energies given to the acquisition and disposal of Tulip bulbs, or, to be more precise as regards a great part of this exciting period, of the slips of paper which recorded their bargains; for if one thing is more certain than another, the actual possession of the bulbs was the last thing the gamblers wanted. High prices and specially choice varieties were known in Holland in the earlier years of the century, for a contemporary writer, Nicholas Wassenauer, has recorded how the celebrated *Semper Augustus* was sold in 1623 for "thousands of florins," and in the beautiful copper-plates of the famous Utrecht engraver Crispin le jeune, in the "*Hortus Floridus*," we have excellent illustrations of some of the best pre-mania flowers.

The inference is that the Dutch would be more or less familiar with the lucrative business of selling well-known kinds, and doubtless the fortunate possessors were just as much envied as Clusius had been a generation or two before, when he alone had Tulip bulbs to cultivate. Their readiness, then, to embark on this trade of getting rapidly rich is not so surprising. The lighted match was all that was wanted. It came in 1634, and gradually the fire burnt fiercer and fiercer until the culminating point was reached in 1636-37. It is impossible to trace in detail all the steps which led up to the elaborate systems of bargaining which eventually became *de rigueur* in their transactions.

To begin with, bulbs were bought and sold as they are to-day, and as they always had been previously; then a system of weights was introduced, of which the unit was an *azen*, a small weight less than a grain. A bulb would be sold at so much per *azen*, and as its weight was recorded when it was planted, the purchaser would have some idea of the price he



A SMALL ROCK GARDEN TWELVE MONTHS FROM THE DATE OF CONSTRUCTION.

is to be seen in the rock garden at Kew, and is taking the place of the old dripping well which has long existed there. The present erection will afford more suitable accommodation for plant-life, and those phases of it in particular that will be more in keeping with it than the old. Doubtless presently we shall see some of the hardy Filmy and other Ferns there, while the shelving rocks, so well shown in the picture, will lend themselves in a variety of ways to effective planting. As will be seen by the left-hand portion of the picture, the entire erection is in touch with soil, a not unimportant matter. The presence of an arrangement of this kind also renders possible the rock pool at its base, while an adjacent bog bed, or anon a tiny streamlet, might each in turn contain its complement, and, while rendering it more complete, demonstrate, if in minor degree, the wealth, variety and resource of rock gardening as a whole.

E. H. JENKINS.

(To be continued.)

and discretion. Here, again, lines and formality would spoil the whole effect, the idea aimed at being the copying of a natural mountain.

The edges of the path should have especial attention, variety in stone and outline being essential. The picture gives a good illustration of this. In the planting the same theory should be followed. An example is shown in the double Daisies growing here and there, as if they had seeded themselves; in the uneven grouping of Sedums and Saxifrages; in the mass of Dianthus in the foreground.

It is wonderful how quickly the plants make themselves at home in the crevices and pockets between the stones; how they grow and spread, till, all of a sudden, you realise that the coarser-growing things are taking more room than their share, to the detriment of some precious pigmy. A most attractive place is the rock garden, but one needing constant attention.

EDITH DELVES BROUGHTON.

would have to pay. Lastly, this principle was extended, and the individual bulbs were no longer thought of, but simply so many azen of this variety or of that, say, of a Gonda or a Viceroy, were bought and sold quite irrespective of the fact whether the weight made up entire bulbs or not. To regulate the trade, now so many had left their usual occupations and were joining in the speculation, collegiums, or clubs, were formed in all the chief centres. The procedure in them was as precise and formal as it is in the Stock Exchange to-day. Two methods of transacting business were allowed. One was called "met de Borden" and the other "in het Ootje."

The former was a sort of sale by arbitration, in which the chief factor, from which it took its name, were two slates or tablets, on one of which, first of all, the buyer wrote down the amount he offered; and on the other the seller that which he was prepared to accept. These were submitted to two umpires, one chosen by either party, who made their award by writing it on the two tablets, which were then returned to the interested parties, who accepted it or not by their allowing it to remain or rubbing it out. The other system, "in het Ootje," was a sort of auction, in which the highest bid was recorded in a curious figure shaped like this:

After the bidding was over, the seller was free to take the sum offered or not, as he pleased. Under both systems provision was made for contributions to the funds of the collegiums. Eating and drinking were an inseparable part of the whole. I always think, when I see those glorious pictures of Franz Hals', in the gallery at Haarlem, how exactly he hit off one of the traits of his fellow-countrymen by his almost invariable introduction of some delicious morsels of food into his pictures. Certainly the inner man was well looked after by these collegiums, and it led to the inevitable result of attracting all manner of ne'er-do-weels, who came solely to partake of, under the guise of would-be purchasers, the good things provided. The crash came somewhat unexpectedly in the February of 1637, and it was in all probability hastened by the part these impostors took in inflating still more the already high prices, although before this date some few of the longer-headed ones had made stipulations in their bargains to protect themselves should there be a fall in prices. Once the bubble was pricked, events moved quickly, and with certain regulations promulgated by the States of Holland and West Friesland in the April of the same year, which defined the terms on which all contracts were to be executed, and with the finding of a Commission in the May following, the famous mania-time came to an end. JOSEPH JACOB.

[Owing to a telegraphic error the name of Tulip Admiral van der Eyck was wrongly spelt on page 615 last week.—ED.]

WINTER WORK ON LAWNS.

WHEN lawns are in need of attention it is a good plan to set about the necessary work as soon as possible after the cessation of mowing in autumn, for although it is possible to proceed with certain kinds of work until the middle or end of March, the earlier it is done the better. The lifting and relaying of turf may be done at any time when the weather is open, between late autumn and early spring, but if the ground to be relaid is to be used for tennis, croquet or cricket the earlier date should

the ground be poor, advantage may be taken of the opportunity to dig well-rotted manure into the soil, for it is an advantage to get the manure below the turf whenever possible rather than apply it as a top-dressing. Poor, weak turf may sometimes be wonderfully improved by being lifted, the ground manured and dug over and the turf relaid. One thing must be considered, however, when this is practised, viz., that the ground be thoroughly trodden before the turf is relaid, otherwise during the following year, after a machine or roller has been passed over it a few times, small depressions will appear,

which are due to uneven sinkage.

Even in old lawns small hollows occasionally occur, particularly if trees have occupied the ground at any previous time. These small depressions have a disfiguring effect, for although a lawn with naturally undulating turf, following the general contour of the neighbouring land, is quite as beautiful as a perfectly level lawn, and even better suited to some gardens, it is a very different matter to a lawn spotted with tiny hillocks and depressions. In the event of such a lawn being in a very bad state, the most satisfactory result is gained by lifting the whole of the turf, forking over the ground, manuring if necessary, and relaying the turf after the ground has been properly levelled. But if the holes are few in number it is better to remove the turf from those regions, add the necessary amount of soil and relay the turf. In carrying out such work it is sometimes a workable plan to reduce hillocks and fill up holes with the soil so obtained, thus effecting a saving of labour and cartage.

People are often troubled with weeds in lawns, and during winter they wish to do something to improve the general condition of the grass for the following year. For the smaller weeds and moss the great point is to encourage the grass by every possible means. As a rule the weeds gradually gain the upper hand when the soil begins to fail, therefore steps must be taken to enrich the soil before it will be possible to cope with the weeds. True, it is possible to kill a certain number of the weeds by applying lawn sand, but no permanent good will be done until the ground is enriched and made more suitable for the grass than for the weeds. To set to and clear even an acre of lawn from such a weed as the



TULIPS OF THE MANIA TIME. THE BULBS OF THESE VARIETIES WERE WORTH MUCH MORE THAN THEIR WEIGHT IN GOLD.

be selected. At the same time any necessary repairs should be done to playing areas or to portions of lawns which may have become badly worn during summer.

Ordinary lawns which are not subjected to heavy wear may have weak places renovated by pricking the turf over with a fork and inserting a little seed during September, but turf which is subjected to hard wear requires something further. Any part where the grass is weak should be lifted, the ground forked over and levelled and new turf laid. Should

Daisy, either by lawn sand or by hand-weeding, is an expensive and almost hopeless task without the grass is encouraged, for if 10,000 weeds are removed one winter the same number may appear the following spring from seeds lying dormant in the earth. The same remarks apply to moss, for many days may be spent raking the moss out with an iron-toothed rake—the means usually adopted—but if something further is not done the results will be unsatisfactory. One of the best dressings that can be applied to

lawns on poor soil is good loamy soil free from weed seeds. If applied early in the winter, a depth of quite 2 inches may be spread over the turf, but steps must be taken to stir it about frequently, otherwise it will become caked, and the grass will suffer. A chain harrow passed over the surface on a dry day is usually all that is needed, or, on a small lawn, the work may be done with a strong iron rake. Anyone who has not applied such a dressing will be surprised to find how soon the soil disappears among the grass. Quite as good a dressing as soil is furnished by mud taken from a lake, pond or ditch. This should be left in a low heap for a few weeks to dry somewhat, and then be spread over the grass. Until dry enough for the harrow it may be stirred occasionally with forks. Like soil, it soon disappears. Well-decayed farmyard manure is also a good dressing, while the screened residue of garden fires may be applied with advantage. Ground which is deficient in lime may be made more suitable for grass by the addition of lime, while a sowing of bone-meal is also a good thing. Bone-meal, basic slag and other manures of a like nature are more suitable for grass which is fairly free from weeds than for very weedy ground. Basic slag, it must be remembered, gives better results the second summer after sowing than the first; therefore it is a good plan to make a light sowing in spring, say, about seven pounds or eight pounds to the square rod after the application of soil or manure during autumn or winter. Spent hops and soot are good subjects to apply in wet weather in spring, for they act quickly, and give the grass a little extra fillip at a necessary time.

Coarse weeds, such as Plantains and Dandelions, cannot be out-grown in the same way as smaller-growing kinds, therefore the best way of dealing with them is to pull them up, taking care to extract the whole of the rootstock. Cutting off is of little use, for dormant buds start into growth, and in a short time the plants are as vigorous as ever. In the same way applications of salt to the crowns are not always effective, for unless the rootstock is killed new growths are sure to appear sooner or later. The extraction of such weeds leaves a considerable number of holes in the grass, which should be filled in with soil free from the seeds of weeds.

The spread of weeds in lawns is assisted to some extent by mowing without collecting-boxes on the machines. Where the grass on lawns is of a coarse character an occasional dressing of sea sand should be given. This encourages the finer grasses, which in time take the place of the stronger ones. When a dressing has practically disappeared the lawn should be raked over for the purpose of removing stones and other rubbish, after which it should be brushed with a good besom and well rolled.

D.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Chrysanthemum Miss A. Brooker.—A decorative Japanese variety with somewhat incurving florets and of rich chestnut crimson colouring. The habit is erect and good. Messrs. James Veitch and Sons, Limited, showed pot-grown examples not more than 3 feet high, Messrs. Wells, Limited, Merstham, having a handsome vase of blooms. A useful addition.

Chrysanthemum Eric Wild.—This is virtually a pink-coloured Mensa, and we are of the opinion that no higher tribute could be paid to a single-flowered variety.



PRUNUS MIQUELIANA, A NEW HARDY WINTER-FLOWERING SHRUB.
(About two-thirds natural size.)

Chrysanthemum Mrs. Wingfield Miller.—A single-flowered variety. The colour is rose pink, the broad ring of white at the base of the florets rendering it distinct and attractive. These were from Messrs. Wells, Limited, Merstham.

Prunus miqueliana.—There would appear some doubt as to the authenticity of the name here given, and which for the moment is attached to one of the most elegant and captivating of the winter-flowering members of this beautiful race of plants. The plant assumes a twiggy bush or tree, the branches studded with two to three flowered clusters of starry white blossoms, arranged barely an inch apart on elegant leafless sprays. At maturity the filaments assume a reddish carmine tone,

which enhances the value of the plant (see illustration). It is said to be capable of enduring with impunity several degrees of frost later, when in full flower. From Colonel Stephenson R. Clarke, C.B., Borde Hill, Cuckfield, Sussex.

Asplenium divaricatum elegans.—A plant capable of much useful service from the market-grower's and decorator's point of view. It has more finely-divided fronds than *A. bulbiferum* and is of more erect carriage. A graceful and beautiful plant. From Messrs. J. J. Parker and Co., Whetstone.

Carnation Mrs. A. F. Dutton.—A pretty and attractive variety, said to be a sport from White Perfection, though as shown it is certainly much larger. The predominating colour shade is apple blossom pink, rosy and warm at first, and, paling later at the edges of the petals, is effective and pleasing withal. From Mr. A. F. Dutton, Iver, Bucks.

Carnation Bonfire.—An American-raised variety of medium size, and of a colour shade that is all aflame in the sunlight. Mingling with the crimson-scarlet pervading the flower as a whole, there is seen a touch of ruby crimson, which, while distinguishing it from all other reds, endows it with fire and life. From Messrs. William Wells, Limited, Merstham, Surrey.

NEW ORCHIDS.

First-class certificates were awarded to *Laelio-Cattleya* Golden Oriole Ruby, shown by Lieutenant-Colonel Sir George Holford, K.C.V.O.; and *Odontioda* Latona Fowler's variety, shown by J. Gurney Fowler, Esq.

Awards of merit were granted to *Cypripedium* Viking, from Lieutenant-Colonel Sir George Holford; *Sophro-Laelio-Cattleya* Carna, from Messrs. Charlesworth and Co.; and *Cypripedium* Eurybiades, from Sir Trevor Lawrence, Bart., K.C.V.O. A grand specimen of *Sigmato-stalyx radicans*, also shown by Sir Trevor Lawrence, secured a cultural commendation.

NEW FRUITS.

Apple Steyne Seedling.—A capital late dessert variety of fine flavour and colour, resembling a large fruit of Cox's Orange Pippin. Shown by Lady Thornycroft, Isle of Wight.

Apple Crawley Beauty.—A late culinary Apple of unknown parentage but of excellent quality. We are informed that this is a noted local variety found in cottagers' gardens in the neighbourhood of Crawley. Shown by Messrs. Cheal and Son, Crawley, Sussex.

Apple Winter Banana.—A Canadian variety shown by the Government of British Columbia. The flesh is firm, juicy and of far superior flavour to the general run of Canadian Apples.

GARDENING FOR BEGINNERS.

THE LEATHER JACKET AND ITS ERADICATION.

THE daddy-long-legs, or the crane-fly, as it is variously called, in allusion to the length and slenderness of its six legs, is an insect known to everyone. It is numerous enough almost everywhere to call attention to itself during the summer and early autumn months, flying over grasslands or sheltering in sheds or rooms in wet

chrysalids being easily recognisable from their elongated form and curious projecting spikes (Fig. 5). From these the perfect fly (Figs. 1 and 2) emerges in summer.

One noticeable peculiarity in their habits is their liking for damp places. This suggests the desirability of careful and thorough drainage. Their ravages are very rarely experienced in well-drained

situations, especially if there is no tendency to acidity through insufficiency of lime in the soil. Birds of many kinds feed upon them, and the numbers consumed by thrushes, starlings, lapwings, rooks and gulls are enormous.

Nothing that can be added to the soil can be said to kill them without fail, though probably dressings of substances containing naphthalene do a good deal towards clearing them away, and, if it could be applied cheaply, carbon bisulphide would be an excellent remedy. Efforts have, however, to be directed mainly towards prevention, and the encouragement of insectivorous birds and attention to drainage are important points in this direction. The cleaner

unforeseen that often happens, and from one packet of seed a variety of colours, both in single and double flowers, may be obtained, even though the seed may have been collected from one plant only. It is however advisable to procure seed from a reliable source, for by this means only is one likely to obtain a good strain of seedlings. Single varieties are, as a rule, useless, and should be discarded; but double varieties, if worthy, may be perpetuated by layering or from cuttings and pipings. There is a common failing among double-flowered seedlings, viz., a split calyx, owing to the number of petals being too great for the green calyx tube, with the result that the latter bursts and the flowers present a very untidy appearance.

It is usual to sow seed, say, in late March or April, and these notes serve to remind one in good time for the work to come. The seed should be sown under glass, preferably in a warm greenhouse, using well-drained pans and a compost of sandy loam and sifted leaf-soil for the purpose. The pans should be finished off with a level surface of finely-sifted sandy soil, and the seed just covered with silver sand. It is well to place a piece of glass over the seed-pan to keep a uniformly moist temperature, and under these conditions germination will take place in a week or a fortnight. As soon as germination has taken place, the glass should be removed, keeping the seedlings in an airy place and as near to the glass roof as one reasonably can. When large enough to be handled, and after being well hardened off, the seedlings will be ready to plant in open beds, and if the beds have been enriched with fresh loam, decayed manure and lime rubble, so much the better. By the end of September the seedlings may be transferred to their permanent quarters in beds or borders, and here they may remain until the following year, at which time they can be depended upon to reveal their secret forms and colours.



1, MALE DADDY-LONG-LEGS; 2, FEMALE DADDY-LONG-LEGS;
3, EGGS; 4, GRUB; 5, CHRYSALIDS.

weather. There are several species known in Britain, and their various times of hatching-out prolong the season over which the insects are on the wing. *Tipula oleracea* is about in May and June, *T. paludosa* in August and September, and these are the two common species. The flies themselves do no direct harm, and they form an eagerly-sought food of many birds, such as starlings and thrushes, which may often be seen snapping them up while flying over the rough herbage of a headland, or about a hedge or over a lawn.

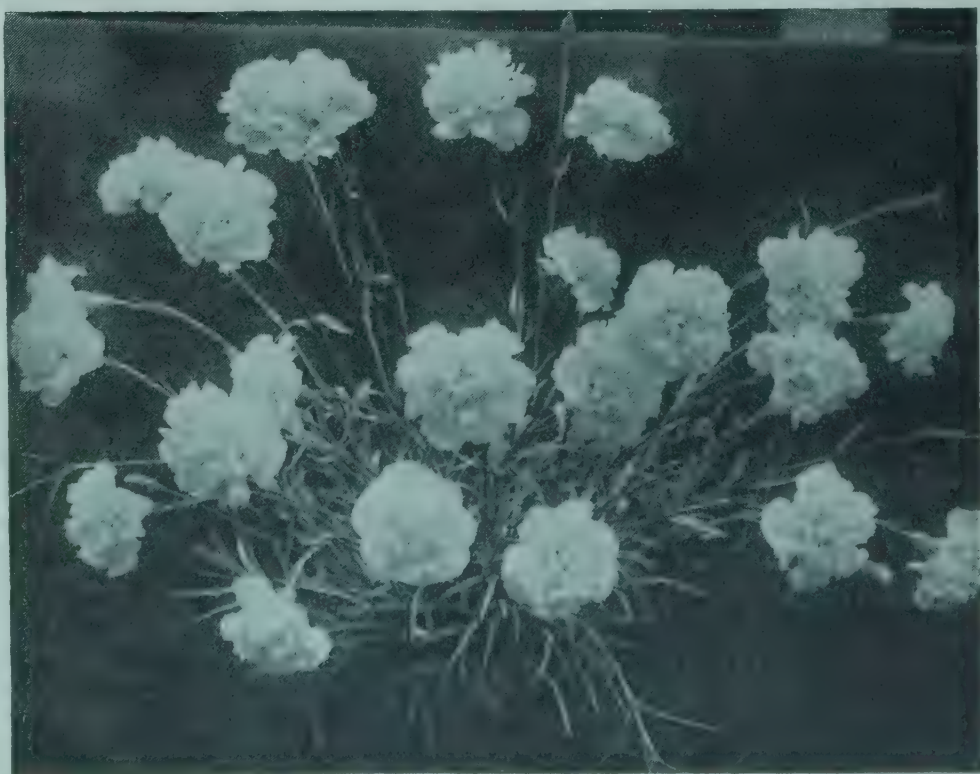
The flies lay a considerable number of blackish eggs, nearly always among rough grass and weeds, though apparently sometimes among cultivated plants. The eggs hatch within a fortnight or three weeks, and give rise to the grub called the leather jacket. Occasionally leather jackets are confused with surface caterpillars or with wireworms, from both of which they differ in the absence of feet. Fig. 4 shows their shape and size when full grown. The mouth is at the pointed end, and at the blunt tail end are a number of curious processes, and these characters help to distinguish them from other soil grubs. In colour they are a dark grey, sometimes almost black, and have a rather tough skin, from which their common name has been derived. They feed on the roots of grasses and various plants, such as Carnations, Strawberries and so on in the garden, within a few inches of the surface, going deeper in cold weather. When full fed they become chrysalids of the same dark tint in the soil, the

the cultivation, too, especially about those too frequently neglected corners of gardens, hedge banks and the like, will help to keep the flies from laying their eggs, and, where it can be used, a heavy roller will crush numbers of the flies when they are hiding in rough herbage and in long grass.

SCIENTIST.

CARNATIONS FROM SEED.

THE raising of Carnations from seed is a delightful and fascinating pastime, owing to the fact that one is never quite sure what the results will be. There is a glorious uncertainty about the operation, and one may become possessed of varieties of hitherto unknown colours. It is the



A VASE OF SEEDLING CARNATIONS GROWN BY AN AMATEUR.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Bulbs and Tubers in Store.—Time may profitably be spent at this season of the year in occasionally examining the various subjects that are resting, such as Dahlias, Begonias and Gladioli. A dry, cool place is required, and should any of the bulbs be decaying, remove them at once. If taken in time, decay may be arrested by cutting away the diseased part and dusting powdered charcoal on to the clean-cut portion.

Preparation of the Ground.—As with all other departments of gardening, there is nothing like a good start, and it is at this season, when work is slack, that attention may be directed towards the improvement of the soil and obtaining a greater depth of good soil, so that the plants are better able to withstand a period of drought. The positions for Sweet Peas and Dahlias, to mention two commonplace subjects, should be well prepared, have plenty of manure added, and the surface of the ground be left rough. If the soil is deficient in lime, give the surface a good sprinkling and apply any burnt garden refuse.

Tritomas or Kniphofias.—These are none too hardy in many places, but are worth a little care and attention to preserve them through the winter months. The plants will benefit by a good covering of a loose material, such as flaky leaf-mould or short strawy litter, and, in the event of extra sharp weather, a further covering of Bracken may be given them.

The Rock Garden.

Gentiana acaulis.—We have just replanted two beds of this subject, which has occupied the same position for a number of years on either side of a garden walk. The old soil, which had become impoverished, was taken out to a depth of 18 inches, some rough drainage placed at the bottom and new rooting material afforded, and the old clumps divided up and replanted, making them very firm.

The Shrubbery.

Early-flowering Shrubs.—Those that brave the elements in the New Year are particularly welcome, and when planting in the mixed shrubberies the selection should include some that flower at that season in some form. Quite one of the most interesting, and easily trained to a support, is *Jasminum nudiflorum*. *Lonicera Standishii* is commencing to open its pretty flowers at the time of writing, and will continue to bloom till quite the end of January. *Hamamelis mollis* is in flower about Christmas, and continues fresh throughout January. *Prunus davidiana* and *P. d. alba* commence about the end of the first month. *Daphne Mezereum* and the white form bloom during January and February. Then towards the end of February or early in March that small tree or bush, *Parrotia persica*, begins to unfurl its quaint flowers. *Ribes laurifolium* is new, but will make a grand early-flowering subject for the rockery, being absolutely hardy and unlike any of the others. *Chimonanthus fragrans* (the Winter Sweet) succeeds best on a warm wall, where it will fruit freely as well, and in such a position is often in bloom by the end of January, though it is also hardy here as a bush. During March the *Corylopsis*, *Cornus mas*, with its varieties, with additional charms by reason of their variegated foliage; *Ribes sanguineum* and varieties *carneum* and *atrosanguineum*, the well-known Flowering Currants, *Cydonias*, and the many *Prunuses*, including *Pissardii* and the varieties of *persica*, and the Almonds, *Spiræa Thunbergii* and *Forsythias* will all be in flower.

Plants Under Glass.

Plants in Rooms.—Especially at this season of the year, when thoroughly well warmed at night and probably the windows thrown wide open early in the morning, decorative subjects, even if well hardened, are apt to suffer. Before taking them indoors, especially if from a warm house, they ought to be transferred to a cool one first for twenty-four hours, and the foliage plants be frequently changed.

Ficus repens.—This is a splendid subject for covering the walls of houses, thriving in almost any site and clinging very closely to the walls. It has a neat appearance and, when kept syringed, grows freely.

Stag's-Horn Fern.—On such a background as a greenhouse wall *Platyceriums* look most attractive and seem to thrive. The best way of establishing them is to make a pocket of virgin Cork, securing it firmly to the wall by means of wire. Then fill up with a mixture containing plenty of rough peat. If the plant does well it will eventually support itself.

Fruits Under Glass.

Suckers in Peach Trees.—These are often a continual nuisance and make the house appear very untidy. While the trees are dormant and when attention is being given to the borders, trace the suckers down as far as possible to their origin and cut them off. To keep pulling them when green only causes them to come thicker again. Damaged roots are the cause of them, and the importance of cutting away any roots that are bruised from the under side cannot be over-estimated.

Pot Strawberries.—If the plants in pots for forcing are well plunged in leaves or ashes so that the pots are secure, they will take but little harm. They are best protected from heavy rains, however, and should exceptionally cold weather prevail, add further protection.

The Kitchen Garden.

Chicory.—The roots of this salad may now be forced with the greatest of ease where a warm place is available.

Asparagus.—Where good strong crowns are available, this may now be forced on mild hotbeds or in a warm structure with bottom heat. But in cold frames on a hotbed excellent produce may be obtained. Place the roots thickly on a little soil, just cover them, and keep as near to the glass as possible. Place a lining of warm strawy litter round the frame.

Broccoli.—Look through these and make the curds quite safe from frost by bending down the leaves over them, and when large enough, transfer to a safe place.

Late Turnips.—Mould a little soil up round the roots of these. Such plants will probably give a few good dishes of greens later on.

The Hardy Fruit Garden.

Fruit Trees on Walls.—When fruit trees have been nailed to walls for a number of years, the face of the walls becomes much knocked about and makes a splendid harbour for insect pests. The trees will benefit by being taken down and well cleansed, loosely tied up, and the walls well dressed as well with a strong insecticide, taking care that too much does not reach the roots. The use of strained wires on walls has much to recommend it. Where shreds are employed for nailing, I would recommend the use of those known as Dean's Medicated, as they are both durable and distasteful to insects. E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Herts.

FOR NORTHERN GARDENS.

The Flower Garden.

Iris susiana.—Though quite hardy, it does not harm, but rather benefits the plants to place some rotted manure among the pushing shoots. It is remarkable how, as November returns, the new growths begin to push up from the ground, but it is no doubt during the early spring months that the flowering growths for another year are produced.

Schizostylis.—This Cape plant is doubly gay, owing to the absence of floral competitors. Unfortunately, it is not quite hardy in the North, and in cold localities it is worth lifting and preserving over the winter in a frost-proof building. It succeeds well here on a dry, warm position, and also in the rock garden.

Red Valerian.—This "weed," of which there are some desirable colour variations, is another satisfactory plant for blooming into the winter. It must be provided with a dry soil and warm position to get it in flower so late, and the plant be cut over in summer. It is also suitable for wall culture.

Pampas Grass.—Two months ago it seemed as if this handsome Grass would fail to flower. At the time of writing, however, the clumps are well supplied with plumes. For the sake of these some people strip the plants as soon as the plumes

are fit to cut, which seems a wasteful thing to do. Where frosts are known to be intense, mats or other protecting material should be held in readiness to cover the plants. Here they are often frosted, but always make good the next season's growth, though unprotected in winter.

Shrubs.

Romneya Coulteri.—Still producing its paper-like blooms, this also should be protected during severe frost, for though the current year's shoots may be, and often are, destroyed, the base of the plants may be preserved, provided a dry soil is chosen and protection given.

Lonicera Standishii.—This is now in flower and will continue producing blooms for many months. It is grown on south walls here and varies considerably in the time of flowering, according to position. On a terrace wall it never flowers till spring. The same thing occurs with

Jasminum nudiflorum, which is now flowering in some positions, the buds not being formed on plants in less exciting situations. This is an invaluable plant for the gardener, the long flowering sprays, whether in bud or flower, being always acceptable for vase-filling. The shoots strike root as freely as a Gooseberry, and soon grow into sizeable plants, either for wall-covering or for bushes.

China Roses.—Large unpruned bushes almost every year produce quantities of their lovely pink blooms even into the winter. Our latest and best are produced in a position shaded by large Laurels, and one that no one would for choice choose for Roses. Unfortunately, the vicissitudes of seasons have left nothing but the stock of some. It is worth noting that it is not wise to plant budded Roses for ordinary purposes. Most of them root with facility from cuttings and, if planted deep enough, the frost that will kill such things must be severe indeed.

The Plant-Houses.

Salvia splendens.—Once these are past their best, they are not worth preserving, but should be thrown out, keeping only enough to provide cuttings for another season's supply.

Marigolds.—Those who have not seen these in the dark time of the year would be surprised to see how brave they look as pot plants. Their great foe is mildew, and they flower all the better for being rather under-fed and under-watered. Besides the beauty of the flowers there is always that spicy scent, of which many people are fond—so fond that at one time the blooms were eaten.

Chrysanthemums.—These are much later than usual, which is a condition that is very welcome, as it means a nice lot of bloom well through January. The late plants must, however, be very carefully dealt with, over-feeding and over-watering spoiling the blooms for cutting, and mildew is always a danger to be reckoned with. Cuttings are now ready, but for ordinary purposes it is doubtful if there is any advantage in taking them before the advent of another year.

Tulips.—We look for the earliest Tulips about this time, *Proserpine* being the most reliable forcer and so much superior to the *Duc Van Thol* group that I have not grown any of these for some years past. Few plants are so little affected by bad treatment as these. It is quite usual to shake the soil from the roots and sometimes to shorten these and plant them in fancy receptacles for decorative purposes. I find they live as long as those undisturbed in any way. Heated rooms, however, quickly destroy the petals.

The Fruit-Houses.

Guavas.—These are esteemed for preserving. The plants succeed very well on the back wall of a late vinery, in which the fruit will ripen in September. I occasionally cut back some of the stronger shoots; this causes the production of many young and vigorous ones, which carry much finer fruits.

Cutting Grapes.—Though Grapes can be preserved well on the Vines for a long time, it is an expensive method, and no bunches need be allowed to hang any longer where there is a dry room which can be kept at an equable temperature in which to store them. It may be noted that either end of the shoot may be placed in the water when bottling them. The value of this is that in the case of *Lady Downe's*, where the bunch is sometimes quite close to the main rod, the shoot can be cut close to the bunch and the part beyond it placed in water.

R. P. BROTHERSTON.
Tynninghame, Prestonkirk, N.B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

ROSES AND LAVENDER (Grafton).—We fear the width of the border will preclude the carrying out of the suggestion to which you refer, unless the Lavender bushes were planted as a bordering and trained outwards on the path, should such exist. In so small a compass there would be no better way than arranging the Roses alternately for the present, about two feet apart longitudinally, and not more than 18 inches asunder anglewise. If this were done, the Lavender bushes could be arranged rather closely to form a bordering, though it might be necessary to prune them from time to time to keep them within bounds. Should a grass verge exist at the margin, the planting of the Lavender would be impracticable. In that case we would suggest a bordering of Tufted Pansy Bullion or Florizel.

PLANTS FOR BORDER (G. B.).—If you wish for a border of summer flowers, you could hardly have in the space you name a more effective one than that made by Antirrhinums (Snapdragons), which, in Tom Thumb, intermediate and tall varieties, would make a grand show. The plants range from 6 inches to 3 feet high, and give shades of yellow, pink, crimson and orange in each section. These plants could be raised from seeds sown in January or February in slight heat under glass, and potted on and planted out in early April should do quite well. By employing two colours of each section, a great bank of blossoms would be formed. Snapdragons do not require a very rich soil, but it should be deeply tilled, notwithstanding. For flowering during late summer and early autumn, you might, with generous cultivation of the soil, plant Phloxes, Pentstemons—these to be raised from seed like the Snapdragon—Italian Starworts, Carnations, Michaelmas Daisies and the like. Again, seeing that you have Roses at the back, why not plant the border with dwarf Roses, and, if needs be, carpet the soil with Tufted Pansies? In our opinion, however, either the Pentstemons or the Antirrhinums would make the best show at the smallest cost, and, with a little intelligent care, are easily cultivated.

TREES AND SHRUBS.

REMARKABLE WILLOW TWIGS (R. G. J. R.).—The curious Willow growths sent for examination are flower catkins which have developed abnormally. It is difficult to say what may be the cause of the condition, but it probably originated through the puncture of insects or some other small injury. While such abnormal growths are not common, they are sent for examination two or three times a year, as a rule. A parallel case, but on a larger scale, is the formation of the large, curiously contorted masses of branches found on Birch and other trees, which are familiarly spoken of as "Witches' Brooms."

HEDGE OF CUPRESSUS LAWSONIANA (L. G. F.).—As your hedge has only been planted about a year, there is no immediate necessity for cutting the plants into shape, and you would be well advised to leave the work alone till next April. If you do the pruning now, no new growth will take place until next year, and the clipped plants will look ugly all the winter. By pruning in April, however, new shoots will appear almost at once. It is only by repeated pruning and care that you can keep the top horizontal and the sides vertical, and it will probably take you several years to obtain this condition. A gauge could be used for the sides and top, but it is probable that you will be able to work quite as well by the eye. Do not clip with shears, but use a knife or secateurs.

SHRUBS FOR SHADY PLACES (L. B. W.).—The following subjects are likely to prove satisfactory: Arbutus Unedo, Rhododendrons and Azaleas in variety, Berberis stenophylla, B. Darwinii, Hydrangea Hortensia, Spiraea arizifolia, S. arguta, Potentilla fruticosa, Escallonia macrantha, E. philippiana, E. langleyensis, Cotoneaster frigida, C. buxifolia, and common Holly. It depends entirely upon the object for which the Spiraea is required as to whether S. arizifolia (correctly S. discolor) or S. arguta is chosen. The former grows 10 feet high and blooms in July; the latter grows 5 feet high and blooms in April. Both are excellent shrubs. If you wish for a

shrub with a long period of beauty, a group of the golden-leaved Cornus Spæthii would be a good shrub to plant.

SHRUBS FOR BORDERING A PATH (J. T. O.).—The following shrubs will be likely to suit your purpose. All are easily grown if given good loamy soil which has been well worked, and all flower freely. Olearia Haastii, a compact-growing evergreen 3 feet to 3½ feet high, with small leaves and bearing white flowers freely in July and August. Berberis Darwinii, a bush 4 feet to 6 feet high (can, however, be kept any height by pruning), with small evergreen leaves and orange-coloured flowers in April. Choisya ternata, an evergreen bush up to 8 feet high and kept to 3 feet or 4 feet by pruning, flowers white, fragrant, produced in May. Philadelphus Lemoinei, deciduous, 3 feet high, flowers white, fragrant, borne in June. Diervilla Eva Rathke, 3 feet to 4 feet, deciduous, crimson flowers, borne from May to August. Syringa persica, a small-growing Lilac, 2 feet to 4 feet high, flowers lilac, fragrant, produced in May. It is probable that Kalmia latifolia would not succeed with you. When at its best there are few more beautiful objects, but unfortunately it is fastidious as to its surroundings, and for one place where it grows well there are fifty places where it is not a success. The plants mentioned above are all likely to grow well in ground which would suit an Apple tree or Gooseberry bush.

THE GREENHOUSE.

CLIVIA FAILING (Mrs. A.).—The reason of your Clivia behaving in the way it does is that the plant is subjected to too low a temperature and too great an amount of atmospheric moisture. The condition of the roots, too, may be at fault, and this would tend to make matters worse. If the roots are not healthy, the plant should be repotted next spring, immediately after the flowers are past, using for the purpose a compost mainly made up of good loam, lightened by a little leaf-mould, small nodules of charcoal and silver sand. Clivias are seen at their best when they are kept in a light, buoyant atmosphere, and in a structure where a minimum temperature of 45° is maintained.

PELARGONIUM LEAVES FOR INSPECTION (E. S. S.).—The leaves sent show marked traces of having been attacked by aphides or green fly, and these pests are, no doubt, the primary cause of the trouble. The injury was, in all probability, caused when the leaves were still young, and, as they develop, the punctures made by these insects become larger. Another point borne out by the appearance of the leaves is that the plants have apparently been kept too close and in too moist an atmosphere, for a free circulation of air is very necessary for the successful cultivation of Pelargoniums. We should not advise you to do away with the plants, as we consider that, by keeping them clear of insect pests and allowing them plenty of air, the trouble will be cured.

CHRYSANTHEMUM: YELLOW SPORT (W. F. H.).—From what you tell us of the yellow Japanese Chrysanthemum bloom sent to us for information, we should regard this as a root sport from the white sort named Miss Maud Jefferies. It is not at all an uncommon freak on the part of Chrysanthemums to sport in this manner, and we are very much disposed to think you will have no difficulty in perpetuating it. To make assurance doubly sure, embed the stems of some of the plants in light soil on the greenhouse bench, and propagate the shoots that are evolved. Also propagate the basal shoots from other plants having yellow flowers, and next year will prove, by its results, that you will have certainly fixed this sport in some instances, if not in every one.

PLANTS FOR A GREENHOUSE (J. T. H.).—The back wall should do for Roses; but, even then, so much depends upon circumstances, of which we have no knowledge. In all cases, five minutes on the spot with a practical man will be of more service than any advice we can give without knowing more particulars. If you grow Roses, it will be very essential to keep them absolutely clear of green fly, as these soon cause a great deal of damage. You mention that there are plenty of shelves, and such being the case, they could be utilised for flowering plants of various kinds during the summer and for bulbs in the spring. Again, you might, in the winter, force Rhubarb and Seakale therein, while an early crop of Dwarf Beans would supply something for the table. One good piece of advice is, do not aim at too many different things in the same house, as various plants require varied treatment.

CACTI (X. G. H.).—Many of the Cacti are adapted for growing in a living-room in London, as the dry atmosphere, the bane of most indoor plants, does not affect them to anything like the same degree as it does most classes of plants. A good light position is essential, and the more direct sunshine they get, the better they will, as a rule, flower. The most suitable potting compost for Cacti consists mainly of good loam, lightened by an admixture of brick rubble, broken small, and silver sand. From September to March watering should be sparingly done. At other seasons the soil may be kept moister, but stagnant water must never be allowed. In making a selection of the best for window culture, the Phyllocacti form quite a race by themselves, being of fairly tall growth, with large, gorgeous flowers borne during the summer months. Some members of this section are occasionally to be seen in cottage windows, as is also the Rat's-tail Cactus (Cereus flagelliformis), with long, pendulous growths studded with rose-coloured blossoms. Many of the smaller Cacti, such as the different Mammillarias, Echinocactus and Echinocereus, are of strange appearance, and will flower under favourable conditions.

ROSE GARDEN.

THE SEVEN SISTERS ROSE (A. R. B.).—There is confusion as regards the correct name of this Rose. Some think it is the De la Grifferaie, one of the multifloras, and now used as stock; but its flowers are pink. Others believe it is the Félicité Perpétue, and we believe the latter is the correct variety.

ROSES AND COLD GREENHOUSE (A. G.).—You can most certainly grow good Roses in your cold greenhouse. You have a good border of rotted turf and horse-manure, and we should advise you to trench this over and work some basic slag into the lower soil at the rate of 8oz. to a square yard. If you could deepen the border to 3 feet it would be all the better, looking to the future needs of the Roses. As you plant, give each bush a handful of bone-flour, scattered just beneath the surface soil and well distributed. Procure plants from the open ground—good bushy stuff on the Briar; and you could have one or two standards if you cared to do so, also one or two to train as columnar or pillar Roses.

FRUIT GARDEN.

YOUNG MAY DUKE CHERRY TREE (J. M.).—Could you not make a rough-and-ready provision for protecting the blossom next spring by making a framework round the tree of rough poles, on which the protecting material could rest? Old sheets, mats or tiffany of any sort would do, covering the tree over every night when frost is apprehended, and taking them off in the daytime, doing this till danger of frost had passed.

SPRAYING APPLE TREES (L. J.).—Spores of Fusidium dentriticum are about and active from March to October, perhaps longer. The affected shoots are best pruned off in the winter, but in case any are left, the spraying with copper sulphate (1lb. to twenty-five gallons of water) is resorted to in February. The spraying with Bordeaux mixture is to prevent the growth of spores on new leaves and fruits, and as these are active during the whole growing season (but most in the early part), spraying with Bordeaux mixture must be done at intervals.

DAMAGE TO APPLE TREES (J. R.).—The damage done to the foliage and the failure of the Apples to ripen are due to some extent to the adverse weather at about the time the Apple buds began to burst, and largely, as you suggest, to the attack by aphids. If an attack is likely to occur in spring it is easy to foretell it, for careful examination of the shoots during the winter will reveal the black, shiny eggs of the insects on the young shoots. Spraying with a caustic wash at about the end of February will lessen the number of those that hatch, and then spraying with Quassia and soft soap as soon as hatching occurs will check the trouble another year, so that an attack need not be feared, as it will not come until winter forms occur, and not before the middle or end of May, when the trees will be better able to withstand an attack.

PEAR LEAVES FOR INSPECTION (J. E. W.).—The insect that attacked the Pear leaves and devoured their upper surfaces is known as the Pear slug, and is the larva of the Pear and Cherry sawfly. It is black during a part of its life and has a slimy skin, and this has earned for it the name of slug; but, like most other true insects, and unlike the slug, it becomes a chrysalis, dropping to the earth and burying itself for the purpose. It hibernates in this form during the winter, and the perfect four-winged fly emerges in summer. The best method of dealing with it is to spray with lead arsenate, or to dust the leaves with lime on two occasions at intervals of two days. The latter measure has the effect of causing the larva to shed its skin twice in such rapid succession that the effort destroys it.

KITCHEN GARDEN.

INJURY TO CELERY (Mrs. A.).—The cause of your Celery being blighted is that the plants are very badly attacked by the Celery fly—to such an extent, indeed, that they are absolutely spoilt. The fly is but a small one, which deposits its egg on the leaves. After a short time these eggs hatch into tiny maggots, which commence to eat the chlorophyll, or green matter, of the leaves, thus greatly weakening the plants. When the evil is first noticed, these little white maggots may be seen carrying on their work of destruction between the two surfaces of the leaves. If few in number, they can then be killed by a nip between the finger and the thumb; but in the case of a bad attack this is, of course, impossible. The main point is to keep the fly from depositing its eggs on the plants, for which purpose soot or lime may be sprinkled on the leaves while they are damp. The two ingredients should not be mixed, the soot being more generally preferred.

MISCELLANEOUS.

WINTER TREATMENT OF LAWN (Mrs. Nains).—You will find this subject fully dealt with on page 627 of this issue.

ABNORMAL ANTIRRHINUM (W. R. Ward-Jackson).—The Antirrhinum sent is certainly an extremely curious one—more curious than beautiful. The inflorescences had developed in the normal way so far as bearing numerous lateral buds was concerned, but there they had failed. The flowers had not become green, as in so many instances, but instead of petals and so on, short leafy shoots had been developed, the leaves being very small compared with the normal ones. This kind of thing—replacement of flowers by leafy shoots—is sometimes due to external conditions, but if it were so in the present case, it is difficult

to see why other neighbouring plants were not also affected. It would rather appear that for some unknown reason the seedling had been born with this peculiarity innate. It would be extremely interesting to see whether the plant behaves similarly next year, or whether cuttings from it do so.

NAMES OF FRUIT.—*W. F. N. C., Southampton.*—Apple Royal Nonsuch and Pear Marie Louise.

NAMES OF PLANTS.—*Regular Reader.*—See next week's issue. — *Veronica.*—Small specimen, *Viburnum Tinus* (Laurustinus); large specimen, *V. T. lucidum*; *Veronica speciosa* hybrid, probably a little tender on the East Coast. — *C. W., Sunderland.*—1, *Linaria Cymbalaria*; 2, *Sedum sarmentosum variegatum*.

SOCIETIES.

THE PERPETUAL CARNATION SOCIETY.

THE winter show of this society was held in the Royal Horticultural Hall on Wednesday, December 4, the non-competitive exhibits having been staged on the day previous in conjunction with the Royal Horticultural Society's meeting. That the society is making progress is fully evidenced by the excellent display of Carnations, making quite the best exhibition yet held by the society. There was a good attendance of visitors present during the day, and quite a keen competition in many classes.

OPEN SECTION.

One of the most attractive classes was that consisting of a table of cut Carnations arranged on a space 10 feet by 3 feet, with foliage, arranged for decorative effect. Mr. C. Engelmann, Saffron Walden, secured leading honours with a very handsome display, which included Lady Northcliffe, Sunstar, Carola and Pink Delight, in excellent condition. Messrs. W. Wells and Co., Merstham, obtained second prize with a bright and well-finished stand, having Dorothy Gordon and others in good form. Colonel Rideout, Langley, Bucks, came third.

The American Challenge Cup was won by Mr. H. T. Mason, Church Farm Nursery, Hampton, with three grand vases of White Wonder, Dorothy Gordon and Gloriosa, Mr. W. E. Wallace being second and Mr. C. Engelmann third.

Mr. C. Engelmann obtained the Brunton Cup for English novelties, showing Sunstar, Lady Northcliffe and Carola, of splendid form and colour.

Mr. E. Guile, Shortgrove Gardens, Newport, Essex, secured the highest place in the class for twenty-five blooms of Enchantress colour with the variety Lady Meyer, which also received the silver-gilt medal offered as special prize in the open classes. Mr. W. E. Wallace was second and Colonel Rideout third.

The first prize for twenty-five pink Carnations was secured by Messrs. Stuart Low and Co., Bush Hill Park, with a well-finished vase of Baroness de Brien, Mr. W. E. Wallace coming second and Mr. C. Engelmann third.

Mr. W. E. Wallace achieved first place with the rose pink variety Gloriosa; second, Colonel Rideout.

Una Wallace was the premier deep pink shown by Mr. Wallace, Mr. Engelmann following.

The scarlet class was very brilliant in colour, Mr. Wallace taking first with Scarlet Glow, Mr. H. T. Mason second with Beacon, and Mr. H. J. Dudney of South Road, Erith, third.

Whites were also good, and Mr. H. T. Mason's White Perfection was a well-deserved first, Mrs. Collins, Heathfield Nursery, second, and Colonel Rideout third.

The first position in the dark crimson class was secured by Mr. W. E. Wallace with a beautiful vase of Carola, which was much admired, Mr. Engelmann taking second place with the same variety.

Mr. Wallace took first in the "fancies" with Benora, Messrs. Stuart Low and Co. second, and Colonel Rideout third.

Mikado, shown by Mr. A. F. Dutton, was placed first as being the best vase of any other self-coloured Carnation not included in the above classes. Colonel Rideout obtained second.

Mrs. A. R. Bide, Farnham, secured first prize for a well-arranged basket of Carnations and foliage.

Mr. S. F. Jackson, Danehurst, Epsom, was the successful winner with ladies' sprays, Captain Wiener, Ewell Castle, Surrey, taking first for six gentlemen's buttonholes, and Mr. W. Heath, The Hylands Gardens, Chelmsford, was placed first for a very pretty hand-basket.

AMATEUR CLASSES.

The beautiful silver-gilt challenge cup presented by Lord Howard de Walden, and offered for a semi-circular group of growing plants, was awarded to C. F. Raphael, Esq. (gardener, Mr. A. Grubb), Porters Park, Shenley, for a well-finished group, having perfect flowers in good condition and colour. Mrs. Bischoffsheim, Warren House, Stanmore, also staged a nice group, and secured second, Mrs. Adair, Adair Place, Englefield Green (gardener, Mr. W. Holder) coming third.

There were two circular tables of cut Carnations arranged for effect, which were very pretty, and the one staged by Sir Randolph L. Baker, Bart. (gardener, Mr. A. E. Usher), Ranston, Blandford, was very tastefully done and well deserved first prize, Mr. H. Smith, Epping House, Little Berkhamsted, Herts, taking second.

There was keen competition in the table decoration. Sir Randolph Baker was first, and was very closely followed by Mrs. Adair (gardener, Mr. W. Holder).

Sir Randolph Baker took first for six Carnation plants in bloom, which were in good condition, and Mr. W. Holder secured second.

The Burnett Challenge Cup was won by Sir Randolph Baker with twelve blooms of Burnett's novelties, while Captain Wiener secured first place for six blooms.

Messrs. Wells' gold medal was also secured by Sir Randolph Baker, followed by Lord Burnham, Beaconsfield.

The Dutton prizes, which were very attractive, were offered for twelve blooms of special varieties, the first prize being won by Sir Randolph Baker, Bart., who was followed by F. Ricardo, Esq., The Friars, Old Windsor (gardener, Mr. G. West).

Awards in the non-competitive classes were given as follows, all for Carnations: Mr. C. Engelmann, large gold medal; Messrs. Stuart Low and Co., gold medal; Mr. H. Burnett, large silver-gilt medal; Messrs. W. Lawrenson and Son, silver-gilt medal; Messrs. Young and Co., silver-gilt medal; Mr. R. F. Felton, for a table of British novelties, silver-gilt medal; and silver medals to Messrs. W. Cutbush and Son, Highgate, and Mr. G. Lange, Hampton.

HORTICULTURAL CLUB.

A TOUR IN PALESTINE.

ON Tuesday, the 4th inst., after the usual monthly dinner of this club, at which Sir Harry Veitch presided and a large number of members and friends, including many ladies, were present, Mr. Arthur W. Sutton, F.L.S., gave a most interesting lecture, entitled "My Desert Camping Tour to Mount Sinai," illustrated by a hundred splendid photographs taken by him *en route*, and beautifully coloured. Mr. Sutton, who takes a particular interest in the evidence afforded in favour of the accuracy of Biblical records by the actual localities to which they refer, explained at the outset that he was heavily handicapped in this direction by the shortness of the time at his disposal and the difficulty he felt on referring to the views he displayed in not dwelling at too great a length on the many interesting points in this particular connection, which, moreover, he felt were hardly adapted to a general audience. He commenced with a map of the region which he had traversed circuitously for some two hundred miles in company with Dr. Mackinnon, the well-known medical missionary of the Edinburgh Mission in Damascus. The first visit made was to the traditional spot where the passage of the Red Sea was effected, under apparently miraculous conditions, by the Israelites. It would appear, however, that there are three places assigned to this, one of which, to the north, where the water is very narrow and shallow, is considered as the most likely, as an exceptional state of tide and wind might have greatly facilitated the passage on practically normal lines, while the other two involve the traversing of deep water and a much greater distance, which only a colossal miraculous interposition could have rendered possible. The views of the desert were splendid, apparently limitless streaks of barren sand, without a trace of vegetation, alternating with views of brilliantly green oases of Palms, sometimes, thanks to a local supply of water and the generally warm climate, of such luxuriant growth as to be traversable with difficulty. The general temperature varied, however, from 100° in the shade during the day to very near the freezing point at night. The prevailing conditions of sand and the consequent limitation to camels for transport of both travellers and their impedimenta rendered the whole journey a most fatiguing one, camel-riding being so uncomfortable as to compel frequent descents for a rest, and walking being, in its turn, equally exhausting, so that recourse to the camel's back for variety's sake involved no particular charm, and this, with short intervals of rest on the dry, heated plain, and day after day, did but little to recommend the "Promised Land" as a popular resort. In time, however, Mount Hebron and its associated hills of barren granite of brilliant red, interspersed with black and other coloured outcrops, everywhere devoid of even a blade of grass, began to indicate an approach to Mount Sinai, and here, of course, the Biblical records were brought home to the traveller most vividly by the character of the surroundings of these heights, which are regarded as the scene of the most stupendous events. The intervening stretches of sand were here dotted with small bushes, and even one minute flower was discovered by the lecturer. At Sinai there is a monastery, at which both travellers and their cook, guide and camel-drivers had a well-earned and welcome rest prior to the return journey to Suez. A very hearty vote of thanks to Mr. Sutton concluded a most interesting and instructive meeting.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of the Scottish Horticultural Association was held in the Hall, 5, St. Andrew Square, Edinburgh, on the evening of Tuesday, December 3. There was a satisfactory attendance, presided over by the president, Mr. W. H. Massie, of Messrs. Dicksons and Co., nurserymen. The usual routine business was considered and the nominations of office-bearers for the session of 1913 were made in accordance with the rules. Exhibits were unusually few in number, but this was compensated for by the excellent collection of single-flowered Chrysanthemums shown by Mr. W. G. Pirie, gardener to Charles W. Cowan, Esq., Dalhousie Castle, Midlothian. This was a most interesting and beautifully grown exhibit, showing both excellence of variety and good cultivation. There was no set paper for the evening, but the meeting was an "open" one for the discussion of various subjects. It proved an interesting arrangement, as others of the same kind have done, and good discussion arose on such ques-

tions as the effects of grassland on the coloration of fruit, the effects of galvanised wire, judging of market Leeks, and a number of other subjects comparatively too unimportant for full treatment in a lecture, but of much importance in general practice. The discussion was taken part in by a number of the members present.

THE NEW PRESIDENT.

The new president of the association, as recommended to the annual general meeting, is Mr. David King of the Osborne Nursery, Murrayfield. Mr. King has long taken his share in the work of the association, and has attended faithfully to its interests, furthering its success in every possible way. As convener of the finance committee he has done excellent work, and as a vice-president he has shown how capable he is of filling the post to be vacated in the usual routine by Mr. W. H. Massie, one of the many able presidents of the Scottish Horticultural Association.

BOURNEMOUTH GARDENERS' ASSOCIATION.

LECTURE ON ROSES.

ON December 3 a very interesting lecture, entitled "Thirty-five Years among Roses," was given by Walter Child Clark, Esq., F.R.H.S., of Michelgrove House, Bournemouth, before the members of the above association. There was a very good attendance, the president (J. H. Ralph Smythe, Esq., J.P.) presiding.

Mr. Clark grows Roses under conditions which would daunt the enthusiasm of hundreds of lovers of these popular flowers. His garden is studded with Pine trees, up the stems of which many climbing Roses are trained. His Rose-beds, which vary in size, number nearly seventy. Interest in the lecture was deepened by the production in colours, on a screen, of fine blooms of good old and new varieties of Roses. These coloured photographs were taken by George G. Hamilton, Esq., F.R.C.S., F.R.H.S., who recently showed them and lectured on the subject at Vincent Square, London. On this occasion he showed lovely views of the New Forest, views of rock gardens and of Orchids.

Mr. Clark remarked on the improved methods of exhibiting Roses in these days, and after referring in detail to many lovely varieties, said that he had found those possessing thick, leathery and glossy leaves were, practically, mildew resisters. The lecturer advised Rose-growers to give their trees two winter dressings, to prevent recurrent attacks of mildew and rust. Owing to the presence of the Pines in his garden, he said it was necessary to constantly remove all fallen needles from the soil. He commenced the cultivation of Roses thirty-five years ago, near Liverpool, by growing six plants in pots, all Teas. Then he had some houses built, in which the Roses planted out in a central bed and side beds, did very well, owing to the fact that the top glass lights could be removed from the end of June to the end of November, thus ensuring full exposure of the plants after the first flush of Roses was past. The following were some of the varieties shown in true colours on the screen: General Macarthur, Sunburst, Lady Alice Stanley, Lyon, Lady Hillingdon, Mrs. Peter Blair, Hugh Dickson, Frau Karl Druschki, Lady Waterlow, Edward Mawley, Juliet, Rayon d'Or, G. C. Waud, Hiawatha, Carmine Pillar and other climbing varieties. At the close of the lecture there was a very free discussion, in which many members joined, and Mr. Clark replied to a number of questions. Messrs. Pearce, Heath, Evans and Pavey staged some lovely Begonias, Ferns, Primulas and Calanthes. Hearty votes of thanks were accorded Mr. Clark, Mr. Hamilton and the president. The public as well as members attended the lecture.

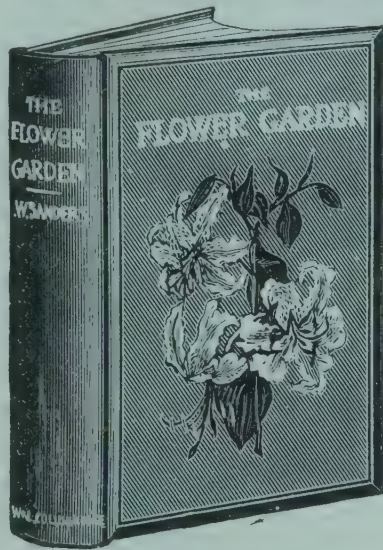
CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

THE fifth meeting of the winter session was held at the Institute of Agriculture on Friday the 22nd ult. Mr. C. J. Simpson occupied the chair and about forty members were present. Mr. C. Wakely of the Agricultural Institute gave an interesting lecture on "Pot Plants and Potting." In the course of his remarks the lecturer covered a good deal of ground, and dealt with his subject in his usual clear and concise manner. In order to make his lecture of practical value, Mr. Wakely brought some specimens of plants and potting material, such as peat, loam and leaf-mould. At the conclusion of the discussion a hearty vote of thanks was accorded Mr. Wakely for his instructive lecture.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

ON Wednesday evening, November 27, the committee arranged a couple of competitions in vase decoration, when prizes were awarded for the best arrangements. There were thirteen entries, and the whole of the results were of a very high order, reflecting great credit on the competitors. The prize-winners in the head-gardeners' and foremen's class were: 1, Mr. A. Hiestad, Old Vicarage Gardens, Shiplake; 2, Mr. W. H. Scott, Hermitage Gardens, Twyford; 3, Mr. H. Attlesley, Wargrave House Gardens; and in the class for journeymen: 1, Mr. Bristow, Scarlets Gardens, Hare Hatch; 2, Mr. R. Baker, Park Place Gardens; 3, Mr. Dancer, Scarlets Gardens, Hare Hatch. Votes of thanks were accorded the judges, Messrs. Hall, Pope and Stephens, who had a most difficult task to perform. The flowers used in the competitions were sent to the Royal Berks Hospital the following morning. Two new members were elected, making a total of twenty-two this session.

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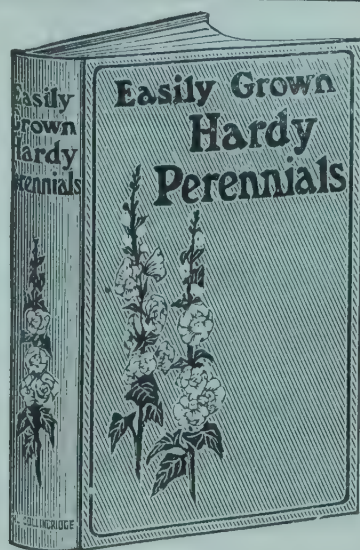


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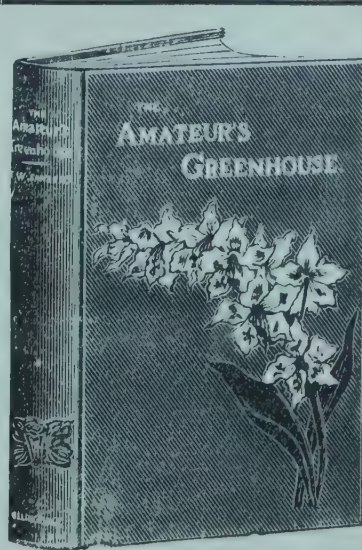


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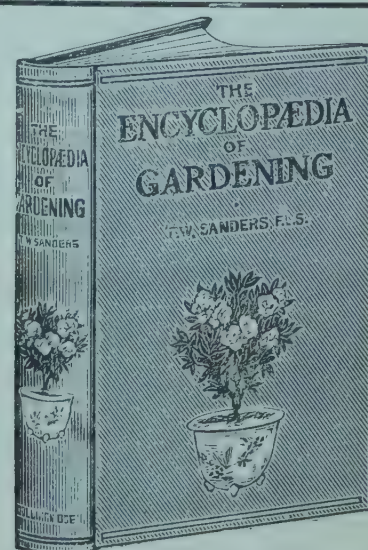


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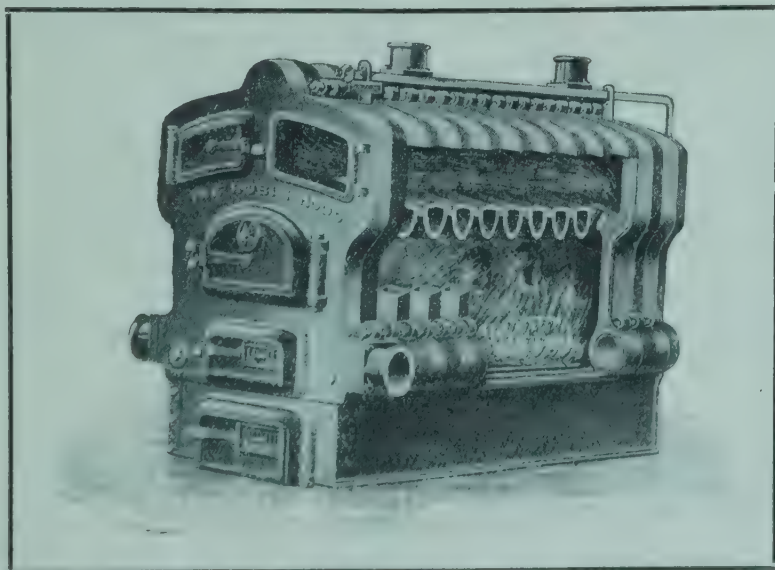
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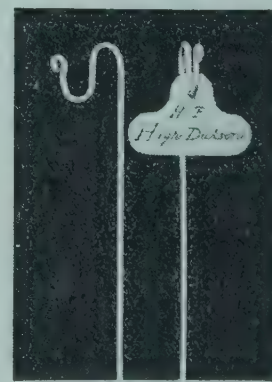
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READING GARDENERS' ASSOCIATION.

HOW TO GROW SMALL FRUITS.

THERE was again an excellent attendance of members at the Abbey Hall (kindly lent by Messrs. Sutton and Sons) on Monday evening at the Reading Gardeners' Association's meeting. The president occupied the chair, and Mr. H. Costin of University College Fruit Station at Shinfield gave an excellent address on "Small Fruits." The lecturer first dealt with the preparation of soil for small fruits generally, advising double digging as a minimum preparation, unless the site had previously been well prepared for the growing of some other crop. In the process of preparation in the case of heavy soils, much road grit or opening material should be worked into the under layer in order to assist aeration and the percolation of water. He advised that stable and farm manure, particularly where the supply was limited, be kept as near the surface as possible, if not actually applied as a top-dressing or mulch after planting, or much manurial value might be wasted in the drainage long before the roots reached it. Heavy soils should be prepared early in the autumn or in spring while in a moderately dry condition.

EDINBURGH SEED TRADE ASSISTANTS' DINNER.

THE annual dinner of the members of the Edinburgh Seed Trade Assistants was held in the Royal British Hotel, Edinburgh, on the evening of December 5. There was a very good company present, and the chairman of the evening was Mr. James Welsh, of the firm of Messrs. Dicksons and Co., nurserymen and seedsmen, while the croupiers were Mr. T. Fortune, Mr. H. Erskine and Mr. A. Chalmers. Mr. J. L. Forbes acted as hon. secretary, and, with the committee, made excellent arrangements, and a highly pleasant evening was spent.

The leading toast of the evening was that of the "Seed Trade Assistants," which was ably proposed by Mr. David King of the Osborne Nurseries, Murrayfield, and president elect of the Scottish Horticultural Association. Mr. King made an able speech, in the course of which he spoke of the high reputation the Edinburgh Seed Trade Assistants had made for themselves throughout the world. Mr. Lyon made an excellent reply. The other principal toast was that of the "Seed and Nursery Trade," this being entrusted to Mr. J. W. Forbes, advocate, who spoke in high terms of the past and present members of the trade and of the importance of their business. Mr. A. Chalmers, in replying, remarked upon the difficulties experienced by those engaged in the seed trade, and touched upon several other subjects connected with the business. Other toasts and a capital musical programme followed.

BOOKS.

The Perpetual-flowering Carnation.*—If one might judge of the popularity of any flower by the number or variety of books written concerning it, the Perpetual-flowering Carnation would, we imagine, have cause to be regarded as *hust* favourite. Already this is Mr. Allwood's second attempt at authorship, and there are at least half-a-dozen other books devoted to the flower by growers of repute, to say nothing of smaller treatises and others that savour rather of the compiler's art than those eminently practical details which the amateur or professional cultivator to-day alike require. To raise seedlings or multiply varieties of any flower is, therefore, but playing a part; how to cultivate them is a matter of exceeding importance. It may be—indeed, is—that much of the ground traversed by the present author has been covered before so far as the practical cultural details are concerned. Hence from these eminently essential standpoints it may be said that the present volume was not a necessity. Mr. Allwood, however, does not stop here, and, while contributing of his expert knowledge, displays not a little enthusiasm, and, anon, reveals that he has closely observed the flower he loves so well.

The book opens with a short historical sketch, not of the Perpetual-flowering Carnation as indicated by the sub-heading, but of the Carnation as a whole. In this connection, paragraph 3, page 2, which treats of hybridisation and improvements, appears out of place, and in any subsequent edition should be moved elsewhere. The declaration, too, that "the Perpetual Carnation of to-day is the product of several centuries of hybridisation and culture" surely stands in need of modification, seeing that it is the veriest babe of the race to which it belongs. The use of the word "hybridisation," too, is technically wrong in this case, where all the variations, whether of colour or type, have emanated

from a single species. In reviewing the early British-raised varieties of the Perpetual set, the author makes no mention of the old *La Belle*, which as a conservatory pillar plant forty years ago was occasionally seen 15 feet or more high. It was more frequently seen as a specimen on a balloon-shaped trellis, being shown as a greenhouse flowering plant. Mr. Allwood refers to the rejection of Mrs. T. W. Lawson when first shown in England "on account of its unkempt flower" (see page 6). It was not merely "unkempt"; it was uncultivated. Indeed, an Englishman, resident in the States, who saw it as first exhibited in London, told the present writer that it would "not be possible to give away such flowers in New York," and "but for the label he would not have known it at all." The fact is, the Britisher had not then learnt how to grow it. To-day many are past-masters of the art.

Under "Propagation" much valuable information is imparted, and, seasoned freely by argument—the why and wherefore in the case—should be more than ordinarily helpful to the reader. We are not at one, however, with the author's conclusions as to the split calyx (page 11). It is stated that "young plants propagated from a parent that splits its calyx will also split theirs." Despite minor defects and a tendency to occasional redundancy, the volume is the most complete of its kind that has yet appeared.

Japanese Gardens.*—This work will commend itself to all real lovers of gardening, and of Japanese gardens in particular. It is written in an attractive, conversational style, and claims attention from the first page to the last. This work should dispel, once for all, the mistaken idea that Japanese gardens consist *only* of the miniature examples composed of stunted trees and pigmy exponents of cultivation, with some touches of rockwork thrown in. These do not represent the true landscape garden scenery of the country in any true sense whatever. The reviewer of this book has in his possession a Japanese work on the same subject, in which there is only a mere touch of the stiff and formal style; it is rather, on the other hand, a free and easy treatment, with the natural surroundings taken advantage of in the most tasteful manner possible. If the editor of "Japanese Gardens" succeeds in nothing else but dispelling this mistaken notion of what Japanese gardens really are, a good work will have been accomplished. Almost all phases of the gardens of Japan are dealt with, from gardening principles to landscape gardens, one chapter only being given up to miniature gardens. Flower arrangement, of which we have a deal to learn from our Eastern friends, is also treated upon, as well as garden folk-lore and legends. The coloured illustrations are excellent and in good taste, but we must bear in mind that the colour tints in Japan are much more intense than anything we see in Great Britain, and due allowance must be made for this. Of course, and rightly so, a deal is made of the beauty of early spring flowers, such as the *Wistaria* and the *Azalea*. Among the coloured plates there is one of *Iris Kämpferi* in its true form. Singular to say, the *Bamboo* as an article of landscape feature scarcely obtains in any of the coloured illustrations; the *Pine* does, however, and most effectively.—*ANGLO-JAP.*

Help for the Orchid Traveller.—A small committee of orchidists has been formed to assist Mr. Frank Ashton, who has, unfortunately, fallen into indigent circumstances, and who is no longer able to follow his employment as a traveller in Orchids. He has been struggling against fate for the past two or three years, but has at last been compelled

to give up owing to a very badly poisoned foot, to attacks of chronic rheumatism, and to an affection of the eyes. He is no longer able to travel, and his resources are practically at an end. An appeal is therefore made to all those who have been associated with Mr. Ashton in the *Orchid* business to show their practical sympathy with him in his great affliction by contributing towards a fund which will be utilised to establish him in some small home business. The committee of the Kew Guild (of which Mr. Ashton is a life member) have generously made a grant of £5 towards the fund. Further donations may be sent to the secretary of the Kew Guild (Mr. Herbert Cowley, South Side, Kew Green), or to me, and will be gratefully acknowledged on Mr. Ashton's behalf.—*JOHN WEATHERS, Secretary, 7, Talbot Road, Isleworth, Middlesex.*

"Country Life" for December 14 contains, among other articles, an illustrated account of "Cliveden, Bucks.—II."; "Tale of Country Life: The Red Admiral," by Elizabeth Kirk; "In the Garden: Preparing a Rock Garden for August and September" (illustrated); "Cause and Effect" (illustrated by G. D. Armour); "Alaska" (illustrated), by Captain C. R. E. Radclyffe; "The Walled Garden at Edzell Castle" (illustrated), by Lawrence Weaver.

CATALOGUES RECEIVED.

Mr. C. F. A. van der Sluys, Ramée, Guernsey: Perpetual Flowering Carnations.
Miss H. Hemus, Holdfast, Upton-on-Severn; Mainly Sweet Peas.
Messrs. J. M. Thorburn and Co., 33, Barclay Street, New York, U.S.A: American Seeds for European Wholesale Trade Only.

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* "The Perpetual-Flowering Carnation," by Montagu C. Allwood. London: The Cable Printing and Publishing Company; price 3s. net.

* "Japanese Gardens," by Mrs. Basil Taylor; price 21s. net. Methuen and Co.

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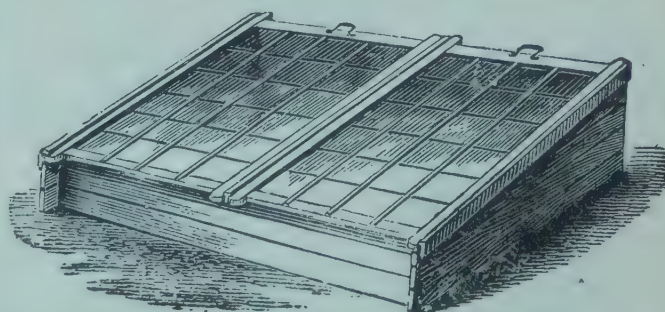
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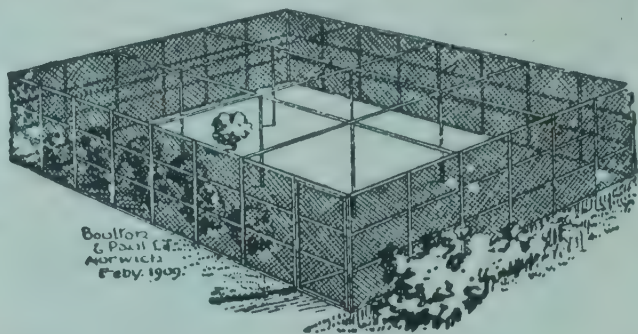
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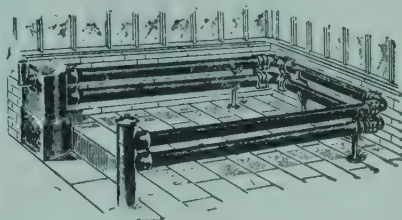
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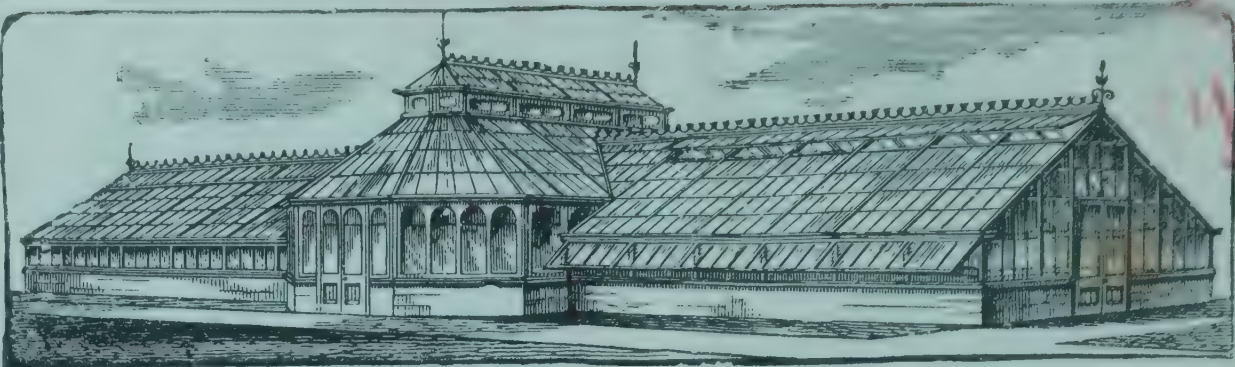
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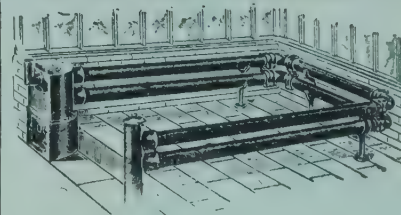
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THE GARDEN.

No. 2144.—VOL. LXXVI.

DECEMBER 21, 1912.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Office: 29, Tavistock Street, Covent Garden, W.C.

NOTES OF THE WEEK.

Lenten Roses Flowering Early.—From several sources we learn that the Lenten Rose, *Helleborus orientalis*, is flowering with the Christmas Rose, *H. niger*. This is unusual, as the Lenten Rose does not generally flower until early spring. Owing to the mild weather, Snowdrops, Double Daisies and Polyanthuses are all blossoming freely in gardens around London.

Wallflower Early Paris.—One of the most interesting plants in our outdoor garden just now is the Early Paris Wallflower. Seeds were sown in the open towards the end of April, and the plants, after being well thinned, commenced to flower towards the end of June. Since then it has always been possible to gather a posy of fragrant blossoms, and now, the middle of December, there is quite a goodly array. In addition to the ordinary yellow-flowered variety, there is one with rich brown blossoms. For their fragrance at this season, these Wallflowers are well worth growing.

The Golden and Red Barked Willows.—On several occasions of late very effective plantations have been noted of these two Willows. In some instances they were in wide areas, grown for commercial purposes, while in others they had been planted in the vicinity of water for landscape effect. In each case the result was very pretty, especially on a sunny day. Anyone who possesses a lake or pond might very well introduce a mass or two of these Willows, which are also very useful for planting about the banks of rivers or brooks. It must be remembered, however, that the best colour is only produced when the plants are cut down annually, for long, quickly-grown branches are always the brightest.

A Useful Winter Shrub.—The Himalayan Cotoneaster, known as *C. rotundifolia*, is worth planting extensively in gardens where showy fruiting shrubs are required, because birds do not interfere with the fruits as they do with those of other kinds. It is no uncommon event for the berries to hang throughout winter and early spring. Although a deciduous species in most places, it may retain its leaves throughout winter in a mild climate, and even about London they rarely fall before Christmas. Growing 4 feet to 4½ feet high, it is distinguished by its round, Box-like leaves and rich red fruits, which appear with the greatest freedom from all parts of the branches. It grows quite well in any good garden soil.

A Pretty Greenhouse Climber.—Anyone who is in search of an uncommon climber for the greenhouse might with advantage choose *Heliophila scandens*, for it is at the same time a free-growing and a free-flowering plant, while it blossoms during late autumn and winter. A native of South Africa, it belongs to the Cruciferae, having the common

Wallflower as one of its relatives. Its long, slender branches are of a sub-shrubby character and attain a length of 15 feet or 20 feet, becoming during the growing period tangled together to form a mass of considerable size if care is not taken to regulate the shoots. The Wallflower-like leaves are dark green and persistent, and against them the freely-produced white blossoms are contrasted with considerable effect. A sunny position is essential to success, while the roots revel in loamy soil.

Ferns in Glass Bottles.—In the current issue of the *British Fern Gazette* Mr. C. T. Druery publishes some interesting particulars about Ferns in glass bottles. We quote the following: "We have still in our fernery a wide-mouthed white glass pickle jar, into which, at least eight years ago, we introduced a tiny Hart's-tongue, simply laid upon clean washed damp silver sand of little more than an inch in depth. The mouth of the jar was closed by a glass stopper rimmed with rubber, and this was tied down with copper wire to prevent removal. The Hart's-tongue grew until it filled the jar and reached the stopper, renewing its fronds for several seasons; a mass of confervoid growth had meanwhile covered the sand, and eventually two plants of *Lastrea Filix Mas*, doubtless arising from stray spores on the Hart's-tongue, appeared. The Hart's-tongue then died, but both the *Lastreas* are still alive, though small, despite the fact that absolutely no fresh water has been admitted to the jar from the day of its installation and the stopper is quite air-tight."

A Useful Rambling Plant (*Polygonum baldschuanicum*).—One of the most satisfactory ways to grow this plant is to place it in a pocket of good loamy soil in a sunny position at the foot of a loose-growing Holly or other evergreen tree, over which it may ramble without hindrance, for it is only when left to its own devices and allowed to grow in a perfectly free manner that the best results are obtained. Growing in such a way it rarely fails to produce an abundant crop of flowers each year, which are well set off by the evergreen foliage of the tree over which it is growing. Some people complain that their plants do not flower freely. There may be several causes for this. The plants may be too young, for, until the older branches are well developed, prolific flowering does not take place. Another cause of lack of flowers is the provision of too generous a root-run in rich soil, while a third cause is shade. As a rule, however, the plant may be depended on to give satisfaction, and the greatest difficulty people experience is in its propagation. It may, of course, be raised from seeds, but both cuttings and layers are somewhat erratic in their behaviour. Another effective use for the plant was noted some time ago, the whole of the west wall of a red-brick house being covered with it, the white flowers and fruit being very conspicuous against the wall.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Billbergia liboniana.—This good winter-flowering stove plant is not too common now, but it is worth notice at the present time, and I saw a nice plant the other day. It is about a foot high, and has a dense rosette of rigid leaves, with flowers of a wondrously fine colouring. The inner segments are purple and white, and the exterior ones are of a bright coral red, the whole being one of the most effective plants of the season. The plant had been removed from the stove to an intermediate house to prolong the bloom, and was grown in loam, leaf-mould and peat with some sand, the orthodox compost for most of the members of the genus.—A. M. D.

The Golden-leaved Chestnut (*Castanopsis chrysophylla*).—This is an interesting and useful evergreen shrub closely allied to the Sweet or Spanish Chestnut. It is one of those choice subjects for those who collect interesting and rare plants. Coming to us from California and Oregon, the selection of a sheltered spot when planting is desirable. At Kew several good specimens are growing in the Heath-beds near the Pagoda. At first sight the evergreen foliage and general character of the plants when no fruits are visible suggest the Evergreen or Holm Oak. Closer inspection, however, shows the rich golden colour of the under sides of the leaves; hence the name of the Golden-leaved Chestnut. Its affinity with the Spanish or Sweet Chestnut is revealed in the fruits, which, though smaller, are similarly spiny in character. An interesting fact is that, like some of the Oaks, the fruits take two seasons to mature. In early July this year, when the plants were freely clothed with the showy male catkins, the crop of fruits from the previous season's flowering was very noticeable. The fruits ripen in September, and should be sown a few days after gathering.

Lilium tigrinum Fortunei.—This is one of the very best of the late-flowering Lilies for the open border, where it makes a goodly show. Immense bulbs of it are sent here every year from Japan in considerable quantities, and these push up a stout, erect stem that will reach a height of 6 feet or even more. The leaves are very numerous, and the entire plant—stems, leaves, flower-stalks and unopened buds—are thickly clothed with whitish tomentum. The flowers in the finest examples are borne in a large open, pyramidal-shaped head. In colour they are of a somewhat lighter tone than the other varieties of the Tiger Lily. For its successful culture no elaborate preparation of the soil is necessary, as in a border of fairly open loam it will succeed perfectly. It is necessary to plant the very large bulbs deeper than those of many other Lilies, a covering of about eight inches of soil over the top of the bulb being very suitable. The other Tiger Lilies are, as a rule, over before this is at its best. Unlike several other members of the genus, the Tiger Lily in all its varieties can be depended upon to flower well the first season after planting, but for growing in pots by far the best is the variety splendens, or Leopoldii as it is often called. This has very dark, smooth stems

and brightly-coloured flowers, with larger spots than the others. Under pot culture it retains its leaves well, which, as a rule, cannot be said of the rest.

Primula malacoides in Winter.—Nothing has given me greater pleasure lately, both in the greenhouse and in a light and sunny window of the dwelling-house, than this comparatively new Chinese species of Primula. It was not so very long since we hailed it as a novelty, and now it is very widely distributed. This is to a great extent owing to its own intrinsic beauty and simple cultural requirements, also to the fact that seed ripens in quantity, and large numbers of plants can in this way be propagated from a single specimen. It has already become established as a market plant. With the exception of the white-flowered variety, I have seen no great divergence from the normal kind, the blossoms of which are of a pleasing shade of lilac. Judging, however, by the changes that have taken place in Primula sinensis under cultivation, and the more recent



FRUITING SPRAY OF THE GOLDEN-LEAVED CHESTNUT,
A CHOICE EVERGREEN SHRUB FROM CALIFORNIA.

example of *Primula obconica*, we may, within the next generation, see many widely diverse forms of *Primula malacoides*. While on the subject of Primulas, I may mention that a recent note on *Primula Forbesii* pleased me much.—H. P.

A Winter-flowering Broom.—*Cytisus filipes*, a native of the Island of Teneriffe, is one of the most graceful of all shrubby greenhouse plants. Another desirable feature is that its flowers are borne during the winter months. From the semi-pendulous nature of its branches, this Broom is sometimes grown as standards, being for this purpose grafted on to naked stems of the Laburnum. From my own point of view it is, I think, the more pleasing when the plants are allowed to grow by securing the leading shoot to an upright stick, and allowing the branches to dispose themselves in a loose and informal fashion. In this way it forms what has been described as a living fountain of

slender, bright green branches, with very few leaves, as in other members of the Broom family. The flowers, which are borne for a considerable distance along the shoots, are white, and of them a succession is kept up for some time. This Teneriffe Broom may be increased by grafting on the Laburnum, while cuttings may be struck, but it is not readily propagated in this way. Seeds are, however, often ripened, and from these young plants can be easily raised. True, they will not flower in quite such a small state as those from cuttings, but they form more handsome specimens.—H.

Sweet-scented Verbena.—I was much interested in the reference to this Verbena (*Aloysia citriodora*), page 610, issue December 7. Of fragrant-leaved plants it is in the front rank. For a number of years it was my duty to fill a large bed with sweet-scented plants, either of flower or foliage, and I used a number of old plants of this Verbena among others. Several of the specimens were 4 feet high and as wide. They were allowed to grow at will during the summer, pruned hard back late in autumn, and stored in a cool vinery through the winter, receiving one or two waterings. In spring new shoots grew again, and the plants were, in due course, transferred to the bed. Every spring I propagated plants freely, selecting young shoots 4 inches long and inserting them in almost pure sand in a hotbed.—B.

What to do with Frozen Plants.—Your leading note in the issue for December 7 is very timely. It is pithy and to the point, and if acted upon, in case of frost reaching any plants, the owners would find how very useful the advice was. I only wish here to give an instance of the efficacy of the treatment recommended. Some years ago I had a large frameful of the Castor Oil Plant (*Ricinus Gibsonii*) badly frozen early in the spring. The attendant had opened the frame, and the sun was just reaching them when I passed. The leaves all drooped like so many damp cloths round the main stems of the plants. I at once broke the ice in a cistern near and syringed the plants with the ice-cold water, and having closed the lights and put on several mats, waited three or four days until the frost had gone before again opening the frame. All the leaves had regained their normal positions, and only one had two brown patches on it.—G. G.

The Fan Palm in Scotland.—The Fan Palm is much hardier than many can understand, and there are to be found a goodly number of plants in Scottish gardens in different parts of the country. They cannot be said, as a whole, to look too happy, but this is not due to any want of hardiness when planted in suitable situations, but rather to the effects of wind, which one finds is very destructive to the beauty of the plants. It is many years since the writer came upon a good plant of the Fan Palm in an East Coast garden, and since that time he has seen a number in different parts of Scotland. It is generally best when sheltered by other trees or shrubs, as where there are walls there are often eddies and gusts of wind which prove injurious. That it is fairly hardy may be seen when I state that it is to be met with in a garden well up Corstorphine Hill, near Edinburgh, where the place is subject to very high winds. In a good many gardens in the West the Fan Palm is also to be met with.—A. M. D.

Winter Aconites Flowering Early.—The first Winter Aconite of 1912 opened on January 1; the first of 1913—if I may use the expression—opened on December 8, 1912. The latter date is the earliest I have ever found it in flower in Suffolk.—T. H. DIPNALL.

Fragrant Chrysanthemums.—That old decorative variety Bronze Phœbus has a delightful scent, and one of the market-growers at Davidson's Mains (Mr. Alexander Porter) continues to grow it for the Edinburgh market partly on that account.—CHARLES COMFORT.

Fatsia japonica.—Is it not rather uncommon to see good-sized specimens of this subject growing outside and standing the winter in bracing districts? This locality—Highgate, North London—is the first and only place I have come across them so grown. The bulk of the plants I have noticed in gardens have been leggy, with only a few leaves clothing the top portions of the stems, and these were never left to face the winter. Further South I am aware they are to be found always in the open; perhaps they are hardier than is usually believed. Anyhow, there are here in two different gardens two good plants of about four and a-half feet high and 3 feet to 4 feet across, and very healthy in appearance. Peculiarly attractive just now is the unfolding of their burr-like headed inflorescence. This plant is better known to some as *Aralia Sieboldi*.—C. T.

A Useful Winter-flowering Orchid.—*Zygopetalum Mackayii* is a fine Orchid for an amateur's Orchid-house, where the temperature does not fall below 50° Fahr. The scapes are produced during the winter months and the flowers are a yellowish green, while the broad lip is white, streaked and spotted with violet purple. A few weeks after the spikes are removed any repotting may be done, using a mixture of the best fibrous loam and peat, with a few finely-crushed potsherds to render the whole porous. When in good health, *Zygopetalum Mackayii* is very vigorous, and requires ample pot room to get the best results. Keep the plants moist throughout the year and a careful watch for thrip, which is extremely fond of the new growth. There are many home-raised seedlings on the market equal to imported specimens in regard to colour, but possessing a more robust constitution, and for this reason an amateur should always secure the home-raised seedlings.—S.

"Carnation Notes" in "The Garden."—May I express appreciation before the year closes, of the increased attention—the more regular articles—which has been devoted to that most popular flower, the Carnation? True, the special notes referred to have dealt with the border section only, but there have also been articles on the Malmaison and perpetual types. What other plant can furnish us with three such valuable divisions—the Malmaison, the perpetual and the border—and each giving us a good measure of beauty and fragrance? By the way, I believe it is thought by many Carnation-growers that the outdoor kind of Carnation for the future will be a hybrid between the last two. It would be most interesting if any reader of THE GARDEN, having experimented with plants so obtained, will give to other readers the benefit of his results.—C. T.

FORTHCOMING EVENTS.

December 30.—Hereford Fruit Show (two days).

January 7, 1913.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster, S.W.

GARDENING ACROSTICS.

AS announced last week, we are publishing a series of eight acrostics based on gardening or simple botany. Prizes of £3, £2 and £1, respectively, will be awarded to those sending in correct solutions of all the acrostics. In the event of more than one competitor sending in eight correct solutions, the prize-money will be divided as follows: If two competitors are successful, the first and second prizes will be added together and then divided; if three or more, the whole of the money will be added together and divided. The second and third prizes will be similarly dealt with, should similar circumstances arise in regard to them. The names of those who have correctly solved the problems will be published from week to week, and the final list of prize-winners in our issue of February 15, 1913. In all cases the Editor's decision must be final. The solution to Acrostic No. 1, which appeared last week, will be published, together with a list of those who have correctly solved it, next week, and the solution to No. 2, which is printed below, will be published in our issue dated January 4, 1913. For full rules governing the competition readers are referred to page 623 of our issue for last week.

DOUBLE ACROSTIC No. 2.

A famous Victorian gardener, editor and designer. The first letters give his Christian name and the final ones his surname.

1. The initials of a celebrated Horticulturist and Botanist of the early half of the seventeenth century.
2. Royal and Saintly, I am alone in my glory. I might be a flower, but I am not.
3. I look like a pistil in the middle of a large white petal. What would a botanist call me?
4. Milder than an onion—pedantically spelt.
5. A disease-proof tuber would be worth far more than its weight in gold. Of what?
6. A part of London celebrated two hundred years ago for its vineyard.

Solutions of the above must be sent so as to reach the Editor at 20, Tavistock Street, Covent Garden, London, W.C., not later than December 28. Mark the envelope "Acrostic" on the upper left-hand corner.

CULTURAL HINTS ON NEW AND RARE PLANTS.

ALPINES.

(Continued from page 623.)

Primula Winteri.—This proved quite the idol of alpine plant-lovers when first shown, the mauve, white-centred flowers appearing in a striking setting of powdery leafage. The plant is Himalayan, and very charming when in flower. Seeds should be carefully preserved, and the plant raised freely. It prefers a rich, sandy soil. Flowers in April and May.

Primula bulleyana.—Here is a plant to join forces with *Anemone Allenii* in the cool and moist places of the garden in rich soils. No praise is too strong for it. The flowers are of golden orange hue, the buds reddish. It comes from China. The plant seeds freely, and is easily raised if the seeds are sown soon after being harvested. Hardy, free and vigorous, this plant of many merits should be grown by all. There is no other *Primula* like it.

Primula littoniana.—A remarkable plant in every way; novel, beautiful and striking, and

certainly one of the most effective when grouped. The flowers are arranged in a spicate raceme, and in the distance are not unlike an *Orchis*, save for the red colour at the tip of the spike. The plant grows freely in cool, moist soils, and is easily increased by means of seeds. The established plants may be put out at any time. Of Chinese origin.

Sedum pilosum.—This is a very distinct and pretty member of the genus, with woolly, almost *Sempervivum*-like rosettes of leaves $1\frac{1}{2}$ inches across. The flowers are whitish or pale lilac. Prefers a dry chink at the base of a rock. Grows freely in grit, soil and old mortar rubble. Easily raised from seeds.

Silene Hookeri.—In the rock garden exhibits at the International Show in May last many lovers of alpine plants made the acquaintance of this for the first time. The flowers are rose pink and much lacerated. For a sunny chink in the rock garden it will prove quite a gem. Best raised from seeds. Succeeds in loamy soil perfectly drained. It is Californian.

Patrinia palmata.—A novelty of distinction and merit from the Japanese Alps. The shortly-spurred flowers are yellow, profusely borne on branched stems nearly a foot high. The leaf-tuft is a miniature, practically, of some *Heucheras*, and when established will doubtless increase quite freely by means of division. A quite hardy, free-growing subject.

Lewisia Cotyledon.—Should this species with *L. Howellii* prove to be perfectly hardy in British gardens, they will constitute two of the most interesting alpine a rock garden could contain. Both have rosettes of fleshy leaves, the former having golden yellow, crimson-striped flowers; the latter, rose-coloured flowers. The plants are sun-lovers, and should be given a warm position. For the sake of safety protection is suggested. They are Californian.

(To be continued.)

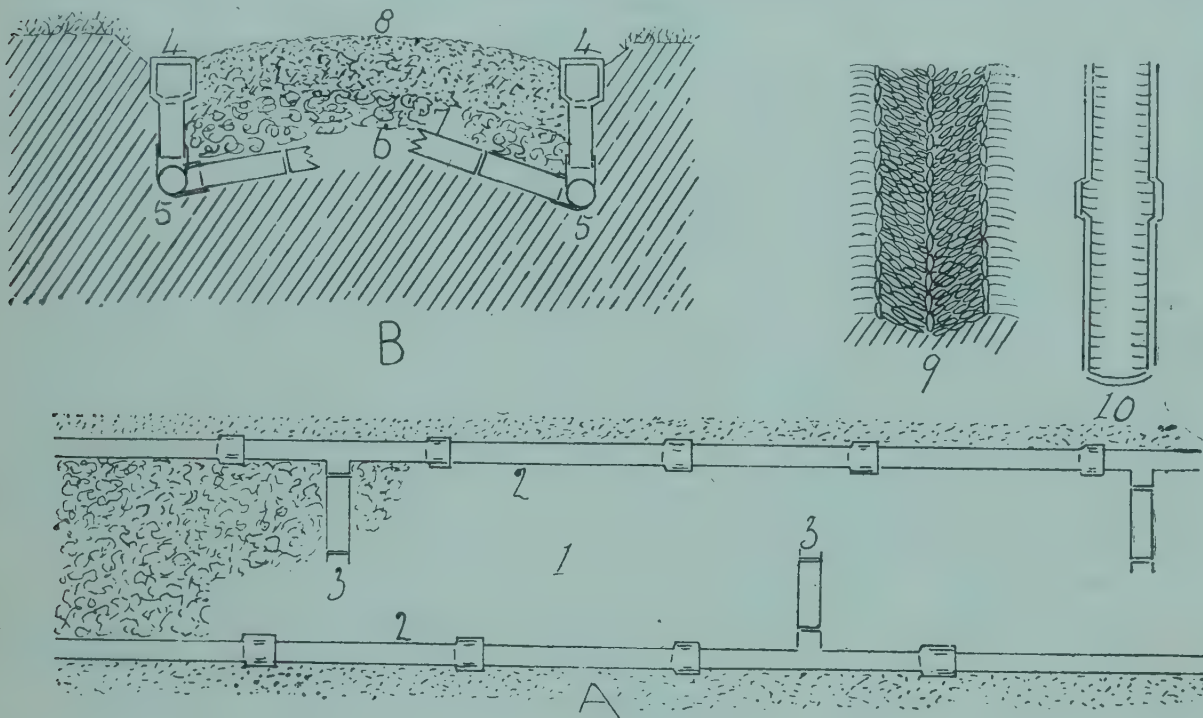
THE MAKING OF GARDEN ROADS AND PATHS.

THE construction of roads and paths is a very important item in the laying out of a garden, for it depends largely on whether they are made well or badly as to whether they can be used or not in wet weather. Of the many points to consider in connection with the work, one of the most important is drainage. When the ground is naturally well drained, the work is simplified, for there is little necessity for the construction of an elaborate drainage system. Surface water can be easily carried away by catchpits made here and there along the margins, the size and depth being regulated according to requirements. But when the ground is naturally heavy and badly drained, it is highly important that a good service of agricultural drains should be laid to prevent the path from becoming waterlogged. In such a case the ground should be excavated to the required depth and be left 2 inches or 3 inches higher in the middle than at the sides. A drain can then be formed along each side, with branches 20 feet or 25 feet apart falling each way from the middle. Connections must also be made between the surface and the side drains for the purpose of carrying surface water away. This is really more important when the road or path is to be used for vehicular traffic than when it is to be wholly for the use of pedestrians,

for if such a road is not well drained, it is impossible to keep it in good condition.

The contour of the ground is another item which has an important bearing upon the construction of roads and paths. When the natural ground is moderately level, or has a slight general slope, the work is more simple than when undulating ground or land with a rapid fall has to be dealt with, for in the one case it may be necessary to reduce hillocks and fill up depressions both for appearance and to ease the road for traffic, while in the latter case steps must be taken to make the road as easy as possible to climb, and also to provide against its being badly washed by heavy storms. When removing hillocks and filling little depressions, care must be taken to arrange the sides of the road in such a manner that they look perfectly natural; thus it may be necessary to regulate the ground for 20 feet or 30 feet back in order to make it approach the road more or less in the form of the sides of a valley. Should it be impossible to alter all hard lines, then banks of shrubs, judiciously placed, may be made to mask the defects. The gradient

A path which has been excavated 6 inches or 8 inches deep should be drained, if necessary, and have 3 inches of hard core, stone or brick rubble placed over the bottom. On this place from 1 inch to 2 inches of coarse clinkers, and ram them down until a level surface is formed. Then proceed to fill up with whatever material has been selected for the surface. As a rule, nothing beats a good binding yellow gravel which has not been screened too finely. This must be spread and well rolled while moist, otherwise it will not set. There are two periods when gravel is objectionable. One is the early days of a thaw after a frosty period, and the other is a light rain after a dry period. At both these times the surface is wet and soft and the lower part dry and hard, consequently the upper part is lifted by the feet or by wheels. There is no help for it, and nothing can be done to remedy it except keeping off the path while it is in either of these conditions. For this reason it is often desirable to lay asphalt paths in small gardens where the paths are in everyday use, but when this material can be avoided, avoid it by all means.



DIAGRAMS TO SHOW THE CONSTRUCTION OF GARDEN PATHS.

A.—Plan of drains in bed of path: 1, bed of path; 2, side drains; 3, branch drains. B.—Section of path showing drains: 4, catchpits at sides of path; 5, section of side drains showing connections with surface and branch drains; 6, branch drains in bed of path; 7, rough material; 8, the finished rounded surface of the path. No. 9 shows a paved channel, and No. 10 section of pipe channel.

of a steep road or path may be eased considerably by using good bold curves; but when the road is for vehicular traffic, the curves must have really good sweeps, for sharp turns are both awkward and dangerous. Then, to stop the wash of water flowing rapidly down and carrying gravel with it, it is a good plan to have large boulders placed in the gutters every 20 yards or 25 yards immediately below a drain, while in some cases it may even be advisable to pave the gulleys with setts or to lay glazed earthenware pipes, cut in longitudinal section, along the sides.

The depth to which it is necessary to excavate a path or road depends entirely on the purpose for which it is to be used. A path which is simply for use by pedestrians may be from 6 inches to 8 inches in depth, while one for light vehicular traffic should be from 9 inches to 12 inches, and if heavy traffic is anticipated, from 12 inches to 18 inches; but such roads are, as a rule, best paved, that is, when they are destined for service roads for gardens and back premises, rather than for carriage drives.

Loose gravel or granite chips are sometimes used in preference to a binding gravel, but these are not very satisfactory, especially when the path is destined for heavy use, for the loose chips soon become filled with soil and other dirt. By rolling on every possible occasion, a well-made gravel path keeps in good condition, and there is nothing to beat it for appearance. Carriage drives and roads must be given from 6 inches to 12 inches of hard core, according to depth, and over this, flints or broken granite should be placed to bring the road within 2 inches of the surface. Make it as firm and level as possible, then cover with gravel and roll well. Such a road will stand a considerable amount of wear, providing wheel marks are regularly raked over and the surface frequently rolled. A fertile source of injury to roads is the heavy shade of trees, which does not allow the surface to dry, and by their leaves falling and not being regularly cleaned up. Foreign matter of any description must be removed from the surface at once if the road is to remain good. Since the advent of motors, some people have taken to tar

spraying the surface of carriage drives. Roads so treated wear well, but are less pleasant to the eye than those surfaced with gravel.

For temporary roads there is no need to go to the same trouble or expense as is necessary for permanent ones, and excellent roads, capable of carrying a lot of heavy traffic, may be constructed of old railway sleepers, which may often be obtained for 6d. or 1s. each from the railway companies. The life of these old sleepers may be anything from five to twelve years, therefore a good deal may be said in favour of their use.

THE FRUIT GARDEN.

THE WINTER SPRAYING OF FRUIT TREES.

THE spraying of fruit trees is fast finding favour with those who but a short time ago were quite sceptical as to any advantage to be derived from the work. As to the efficacy or otherwise, one has but to remember how much has been done of late by fruit-growers for profit in the spraying of their trees, and one may rest assured that these men would not waste valuable time and material if the trees were not benefited in some way. At one time I was inclined to doubt the wisdom of spraying the trees for the many insect pests and diseases that are now recognised as being injurious in some form or other; but having experienced several bad attacks of Apple scab, I was tempted to try remedial measures, and I am pleased to say, with remarkable effect, so that I am now a strong convert to the practice of systematic spraying. Perhaps my recent sceptical feeling was caused by being some years ago wrongly advised in the use of a certain spray fluid, so much so that I lost all the leaves from many trees, which made me extra careful. No doubt the yearly practice of many years ago of coating the stems of orchard trees with quicklime by the aid of an ordinary whitewash brush led up to the invention of sprayers, which have gradually been improved, so that now there is not the slightest difficulty in coating the trees thoroughly with whatever insecticide is required.

Advantages of Spraying.—"What are the advantages derived from spraying?" the sceptic will naturally ask. First, the removal of moss and lichen from the branches, which must do much harm to the growth of the tree. The necessary vigour of trees that are coated with a full crop of moss, and at times with lichen fully 3 inches in length, must be impaired. Even Gooseberry trees which are susceptible to the growth of moss on the branches and main stems never grow vigorously, and in consequence cannot produce crops of fruit equal to what may be naturally expected from them. In the same way are Currant, Apple, Pear and Plum trees affected.

Secondly, Apple scab (*Fusicladium dentriticum*) may be quite overcome by the aid of spraying, and if this alone can be achieved, then the work of spraying is at once repaid. What is worse to the Apple-grower, market or otherwise, than to find almost the whole of the fruit, by the time it is the size of a Walnut, full of disfiguring specks and rust, and which later on contracts, or, in other words, its presence kills the skin of the Apple, preventing any expansion and, as the fruit swells, causing the skin to crack, so spoiling entirely all the fruit affected? Some varieties are more liable to Apple scab than others; for instance, Lord Grosvenor, Warner's King and Stirling Castle

are very susceptible to this fungus disease, which is obstinate in its attack. It can be quite eradicated by assiduous attention.

Thirdly, the Apple-sucker (*Psylla Mali*), Codlin moth, winter moth, Gooseberry sawfly and lackey moth, as well as attacks of aphides, green and black, can all be got rid of by spraying if done in an intelligent manner and with the right material. That great enemy of outdoor Peach culture—blister, or leaf-curl—is caused by fungus, which appears when the young growth is checked by cold winds, and can be removed by spray fluids. Enough has been said to show the value of spraying; the next point is how to efficiently carry out the work for the various remedies.

The Best Spraying Apparatus.—The first point to consider is the form of sprayer to use for the various washes required. In the case of a few trees, such as the amateur may require, an Abol syringe with various sizes of nozzles will suffice. For an ordinary private garden a knapsack sprayer is the best means of carrying out the work. What is required is an efficient article that is the easiest manipulated. I can recommend most strongly the "Holder" pneumatic sprayer. This sprayer has a holding capacity for two and a-half gallons of liquid with a self-contained pump. Within a couple of minutes a pressure of 70lb. is obtained, with which the whole of the liquid is sprayed over the trees in a fine, mist-like spray without further pumping to a height of 15 feet, according to the length of hose and guiding-tube. With this sprayer both hands are left free, which is such an improvement over those sprayers that require continuous pumping. The container is made of solid welded copper to prevent corrosion. The machine will apply lime or anything in the way of spray fluid.

The Four Oaks Spraying Company make an excellent knapsack sprayer, invented by Mr. W. H. Lawrance, Inspector under Destructive Insects and Pests Orders in the county of Hants, and who has had considerable experience in spraying, both winter and summer. The special feature of this machine is the remarkable ease of working; the handle comes over the shoulder, and the working action is very easy and non-tiring. All classes of chemicals can be used with this machine, as it has a double container. In the case of those requiring added power where a large area has to be sprayed, Messrs. Drake and Fletcher make an excellent machine, which they name the "Mistifier," made quite narrow for passing up and down the rows of trees. What they term their "M. M. O." machine holds thirty gallons of liquid, and has two sprayers, which are worked by two men, one on each side of the machine, if necessary. One person continually pumps the liquid to the sprayers, and with the machine kept regularly supplied with spraying fluid, much work can be got over during the day. Naturally, the firm have larger machines of the same type holding up to sixty gallons of liquid.

These sprayers, including the Knapsack Patent, can be used for Potato-spraying equally well, and it is surprising what a large area one man can get over in a short time when fully accustomed to the work. In passing, I might say that dry spraying is much preferred by many for Potatoes, as being more economically applied. This part I will deal with fully later on.

The Best Winter Spraying Fluid.—Like all other details in connection with the garden, there are many recipes for the cleansing of trees from moss, lichen and insect pests. One of the most efficacious, safe and easily applied is quicklime. Not only does lime cleanse the trees from moss and other extraneous growth, but it is valuable as a stimulant to crops growing underneath the trees, as well as being beneficial to the trees themselves, especially where lime is deficient in the soil. For these reasons lime is largely employed by fruit-

the liquid passes when filling the sprayer. In the case of the "Holder" machine the necessary pneumatic pressure is steadily pumped up, and the machine is then ready for use. The operator, with the sprayer on his back, occasionally gives the machine a tilt to keep the lime well mixed, so that it is sprayed evenly on to the trees. Various lengths of hose and lances are required, according to the height of the trees to be sprayed. With various brass unions the one sprayer can be employed when required. In applying the liquid to the trees, the operator will soon learn how much is required to coat every portion. Each grower has his particular time to start lime-spraying. Some begin at the end of November, others not until the buds are bursting in spring, some even later than that. In my case I commenced to lime-spray the Apple trees on April 16 this year. At that time the flower-buds were quite prominent. No

harm accrued; indeed, I tested some trees with the blossoms fully expanded, and with satisfactory results.

Apart from lime there are many other insecticides which may be employed, with good results; for instance, the Woburn wash, as it is termed. Bentley's, too, make a capital powder for the cleansing of trees from moss and lichen, and really well it answers. Messrs. Strawson prepare a mixture known as Strawsonite, which has a good effect upon the trees during the winter. Then there are the various sprayings required for the usual spring insect pests, such as the psylla, aphids, &c., which I purpose dealing with later on.

Swanmore Park. E. MOLYNEUX.



A BEAUTIFUL ALPINE, ASPERULA HIRTA, IN THE GARDENS OF THE LAUSANNE UNIVERSITY AT PONT DE NANT.

ROCK AND WATER GARDEN.

A DAINY WOODRUFF. (*ASPERULA HIRTA*.)

THIS tiny Woodruff is a dainty little alpine, and seems to appreciate being planted in a crevice, where its dwarf growth can spread out fanwise over the rocks, so securing the fullest amount of sunlight, yet always having its roots in a moist medium behind the large blocks

growers. The best hard stone lime is necessary, not that which is soft, as is sometimes the case when made from some kinds of chalk. Eighty-six pounds of lime is sufficient for fifty gallons of water. This amount of lime should be put into a galvanised vessel, adding a small quantity of water to start the lime dissolving. As this proceeds add more water, constantly stirring the whole with a shovel, never allowing it to become quite dry nor making it too wet. Just keep it sufficiently thin to stir and become regularly dissolved. When this has taken place, strain the whole through a fine sieve into another vessel to remove any small portions that may tend to choke the pumps or spray nozzles; but when the lime is good this seldom happens. Add water sufficient for the quantity noted. Each sprayer is fitted with a strainer, through which

of stone. The flowers, which are trumpet-shaped, are generally white, or faintest pink, in colour; but when they receive the fullest amount of light, the pink tint is more pronounced. Recently, while visiting the garden belonging to the Lausanne University at Pont de Nant, above Bex, at the eastern end of the Lake of Geneva, I noticed this little Woodruff growing very vigorously, and always in the position indicated above. Another member of this same family, which there flourished amazingly, was *Asperula nitida* (or *A. Gussonii*). While not one of the easiest of alpine plants to grow in our low-land gardens, it seemed to revel in the almost natural conditions at Pont de Nant, where, during the winter, a snowy thick mantle ensures a complete rest to all the plants in the garden, which is situated at an altitude of 4,110 feet. REGINALD A. MALBY.

ROCK GARDENS IN THE MAKING.

(Continued from page 626.)

The Last Phase.—In all gardening operations planting follows "making" as night follows day. In previous chapters I have touched on some of the more important phases of rock gardening chiefly from the amateur's point of view. No attempt, however, has been made to make it exhaustive or complete. To have done so would have required a volume of considerable size; indeed, I know of no work wherein every phase of rock gardening has been discussed, or that very considerable improvement were not possible of introduction. What I have endeavoured to do, so far as the ground has been covered, is to point the way, and if so much has been accomplished helpfully to those for whom it was intended, I shall have played my part. If not—if I have not dived into the innermost recesses, crevices, cracks, crannies or fissures of some individual case or circumstance—there is no occasion for those who

gardens were of the miniature type, only possible of inspection from the front, there would be some excuse for the wrong to which I refer. The same thing, however, is done in not a few instances where rock step or path has been arranged to permit the owner to wander at will, the result generally a very incongruous whole. Deftly-arranged rock steps or paths, while permitting a close inspection of all the plants, also present a dual possibility to the planter; and ornamentation of such a kind—rock bristling with vegetable-life at every turn—is rock gardening in its truest form; to the intelligent planter ideal. It is in this connection, too, that I must again ask my readers to refer to the coloured plate given of

The Friar Park Rock Garden in the issue dated October 26, 1912. The teaching value of the coloured plate is great in the direction indicated. I do not say the picture is perfect, however, from the planter's point of view. It is too embracing; no single picture could possibly be perfect; that type of perfection which the rock garden itself

area of ground. These are the things that not only make for success; they are those which furnish and garnish, wedding plant to rock and rock to plant as though the twain were made for each other's company and were inseparable. Evidences of such thoughtful work as this occur in the immediate forefront of the coloured picture, where a trickling stream of purple Aubrietia forming a shallow pool lower down invests its surroundings with great charm. A little higher up, on the right, a flood of colour is contributed by some of the free-flowering Dianthi, a genus rich in colour and variable in habit. The larger-growing of these alpine Pinks are useful in many ways, though most of all, perhaps, in the colour effect of their massed colonies, good at 50 feet or 100 feet away, and in the glaucous grey of their leaf-tufts in autumn and winter. The fine group of Alpine Pinks shown in the coloured plate already referred to is

Very Suggestive of Nature's Handiwork, and as such of much teaching value to the planter. There is no formality, no abrupt terminating of the group; on the contrary, there is abundant evidence of the plant effacing rock, tumbling from ledge to ledge, pressing itself into every crack or crevice as it proceeds, reproducing, apparently, in miniature the flowery tufts and effects from which they sprung. It is as though seeds or shoots separated from the parent group had made for themselves a home, and, pressing onward and downward, bejewelled the rock as in Nature's own inimitable way. The group itself at Friar Park is, as may be imagined, of considerable extent, and a great joy to its owner and all who see it when in flower. In its naturalness and suggestiveness it is the most perfect bit of planting that I know, a masterpiece of the art which conceals art. Hence it is worthy of study and of emulation, not of a slavish kind, but of the principle embodied therein, and which is applicable to other plants besides. E. H. JENKINS.

(To be concluded.)

A DWARF EVENING PRIMROSE.

(ENOTHERA ARENDSII.

THIS is a pretty plant for a sunny, well-drained bank, or ledge of the rock garden. Running freely at the

root and flowering on young plants from these runners, it soon covers a good space with flowers of a singularly delicate rose pink, much the shade of a wild Dog Rose, the resemblance to which is further borne out by the white eye. I believe it is one of the many cross-bred plants raised and sent out by Mr. Arends, and that its parents are *Enothera speciosa* and its variety *rosea*, a beautiful plate of which is to be seen in the second volume of "Flora and Sylva." The newer form differs in having slightly larger flowers, more white in the eye, and a more delicate shade of pink on the rest of the petals, and thank goodness—or Mr. Arends—in possessing a much hardier constitution, derived presumably from its white parent. The clump shown was planted on a newly-constructed bit of rock garden last April, and by July, in spite of many outlying portions going away in the baskets of my garden visitors, had formed the colony here seen, and continued to flower till late in October.

E. A. BOWLES.



A DWARF EVENING PRIMROSE, ENOTHERA ARENDSII, IN MR. E. A. BOWLES' ROCK GARDEN.

all unwittingly have apparently been ignored to flounder in the dark; the columns of THE GARDEN are as free to them as of yore, and with their grievance or their requirements duly set forth, the case will receive immediate attention. Hence no apology is made for shortcomings or incompleteness, since these very things will of a surety exist in that phase of the subject with which I am now about to deal. In discussing the

Planting of the Rock Garden, one cannot but direct attention to one of the commonest of errors and the way the work is done, despite intelligence, travel and the great teachings of Nature herself. We plant the choicest things usually low down; the bolder things with trees and shrubs on the higher parts. In Nature the exact opposite is the case; the nearer we approach the glacier or the field of the eternal snows, the dwarfer and more diminutive does vegetation become, till presently it virtually ceases altogether. It may be that in lowland gardens we so plant as a matter of convenience, and if all rock

demonstrates so well at every turn. Perfection, indeed, from our present standpoint could only have been attained by a great series of pictures, fifty or a hundred such, showing in more or less detail the individual subject now in sweet communion with, or at other times almost entirely effacing, rock, than which there is no greater lesson to teach. Such things, indeed, should be regarded as fundamental, first principles, as it were, to all who would see their rock gardens glittering with plant-life, instead of so much coarseness and so much of uncompromising rock, serving little or no useful purpose.

To Achieve all This, or, indeed, any considerable proportion of it, the planter must know his plants, must appreciate their habit and full development, must know of their likes and dislikes, their preferences for sun or shade, must be able to differentiate between the lover of crevice or fissure and that other type spreading laterally and more mat-rooting, which finds a congenial abiding-place on a larger

COLOURED PLATE.

PLATE 1461.

A JUNE BORDER OF IRISES AND LUPINES.

IT is a great advantage in planning gardens, where suitable ground can be given, to allot a certain number of enclosed spaces for the flowers of a limited season only. It enables the designer to create a complete picture of flower beauty in a way that cannot be done

where the bloom has to be spread over a longer time. Colour photography from Nature has not yet reached such a degree of precision and accuracy as can do justice to a careful scheme of colour grouping, but the illustration may serve as a suggestion of the effect of a double border, mainly of Flag Irises and Lupines, at their fullest bloom in June.

The Lupines are of three kinds: the perennial, in five distinct colourings — white, purple-blue, pale purple shading to white, pink and red-purple; then Tree Lupines, white and yellow; and the good hybrid, Somerset, which, I believe, we owe to Messrs. Kelway of Langport. It is not so coarse in growth as the ordinary Tree Lupine, is very full of flower, and can have its lifetime prolonged for several years by severe pruning after blooming, some whole branches being cut away and the remainder shortened back. The pale purple-shaded perennial Lupine is a very fine plant, differing in character from the usual kinds that are so easily grown from seed, in that its whole growth is larger and handsomer, but perfectly balanced and proportioned, with a form of rare perfection, both of leaf and flower-spike. Increase of size, in plants of the same nature, often gives an impression of coarseness; but in the case of this good Lupine the plant is more refined, although larger than its fellows. With me it never bears seed—all the others seed freely.

The white Tree Lupine is a charming plant both for such a border and for groups or single plants at shrubby edges. As I know it, it is shorter-lived than Somerset, and is at its best the second year from seed. There are pink China Roses in the June borders that group charmingly with it. Among the purple Irises, a very useful plant is *Peltaria alliacea*, not so well known as its merit deserves. It is the white mass in the picture just this side of the tall yellow Lupine; another mass of the same is further away on the right-hand side. It is a cruciferous plant, bearing spreading corymbs of soft white bloom; the individual flowers are of the Sweet Alyssum class, but of a warmer white and more showy. Nothing could better set off the masses of purple Iris or

the pink of the China Rose. When the bloom is over, the lower parts of the stem have a half-woody, Cabbage-stalk appearance that makes one think that the plant is done, but after the stems are cut down it spreads out at the root.

The borders are arranged in colour groups, masses of purple and white, with the pink of China Rose and pink Lupine passing to pale and strong yellows, and then again through pale yellows to purple, white and pink. Irises of red-purple colouring have a group to themselves, with red-purple Lupine and a groundwork of the red-bronze



FLOWERING SPRAY OF GARRYA ELLIPTICA, ONE OF THE MOST BEAUTIFUL HARDY SHRUBS IN THE WINTER GARDEN.

foliage of *Heuchera Richardsonii*; but they also pass through those that incline to pink, to the pure pink of the China Roses, and then to white. *Olearia Gunnii* is used for white bloom, and small bushes of Golden Privet among the yellows. A taller bush of Golden Privet looks over the Yew hedge, and from some aspects joins in with the yellow. The pretty Catmint (*Nepeta Mussinii*) and white and pink Pinks come close to the path edges.

G. J.

THE FLOWER GARDEN.

THE FLOWER GARDEN IN WINTER.

HOW deep-rooted are many of the fallacies connected with the garden! Many an one, whose garden during the months of summer and autumn was resplendent with floral glories, as the fallen leaves make a thick carpet over bed and lawn meekly resigns his "fair child" over to desolation, accepting in its entirety the false dictum, "nothing will grow in winter," and consequently his garden is as dreary and depressing as the days themselves. No garden, however small, need be destitute of flowers all the winter months. With the first severe frost the summer delights must wither and die; but many plants defy the weather of a normal winter and repay the care bestowed upon them by giving us that most prized luxury—a flower in winter.

First, I would mention *Jasminum nudiflorum*, which will grow in almost any situation and in almost any soil. Allowed to climb at will over an arbour or paling fence, or closely tied back on to a wall, its beautiful yellow blossoms, springing direct from the leafless stems, opening in late November and onwards, form a patch of colour which must be seen to be fully appreciated. The sprays of blossoms last well in water, thus affording an extra pleasure for the home.

Next, the brilliant berries of *Cratægus Pyracantha*, with its background of dull green leaves trained upon the wall of a house, afford a mass of dazzling brightness upon the darkest of days. This evergreen plant requires little attention when once established, except the pruning away of excessive growths, and, together with *Jasminum nudiflorum*, should find a place in every garden.

Another plant that will thrive in almost every position and afford colour when the Jasmine has finished flowering is *Cydonia japonica*. Given a south aspect, in favourable soil it will reward the grower with an abundance of crimson blossoms, which can also be utilised for indoor decoration. The plant should not be too severely pruned, and in the summer months a mulching of manure will be beneficial.

Coming to the garden beds proper, *Helleborus niger* (Christmas Rose) will provide the necessary white blossoms. Christmas Roses, however, are all the better if protected from wet by either a hand-light or a bell-glass, so arranged that plenty of air circulates round the plants. Thus grown, they will last several years and be an ever-welcome treasure in midwinter. The Violet, given slight protection and well grown on a

sunny border, can be coaxed into bloom before Christmas, and will supply the table for many weeks. The writer made it his proud boast that for years his Christmas gift to his mother was a bunch of her much-loved Violets, picked from a warm border on the south side of the house and grown as before stated. The Primrose, too, is most amenable to the same treatment, *Primula vulgaris alba flore pleno* being especially so, producing an abundance of double white blossoms, which are the better if protected as suggested for Christmas Roses.

For the shady parts of the garden—along walks and, in fact, in any position except a very dry and hot one—the Winter Aconite (*Eranthis hyemalis*) will flourish, imparting beauty and brightness to the garden in January and February. The Winter Aconite, so called from its time of flowering, is a sparkling gem, a golden cup set in emerald green, for the bloom springs direct from the centre of the leaf. Winter Aconites are very hardy, and are often to be seen pushing upwards through the snow.

One often marvels why such a hardy and beautiful winter or early spring flower as the *Chionodoxa*, the Glory of the Snow, is so seldom seen in small gardens. The cheapness of the bulbs places it within the reach of all, and, grown in combination with Snowdrops, the garden would be enriched for many years to come, as the bulbs, once planted, may remain untouched. The advent of that "herald of the sun," the Crocus, with its glorious golden cups upreared beyond its graceful foliage, is accompanied by the brilliance of *Arabis*, *Aubrietia*, *Hepatica*, *Myosotis* and Primroses, and once more the songs of birds are heard in the trees and the earth awakens to renewed life. S. W.

[There are other flowers that brave the elements in winter, such, for instance, as the Winter Sweet (*Chimonanthus fragrans*), Wych Hazels or *Hamamelis*, and *Garrya elliptica*, a winter spray of which we give an illustration on page 638. Doubtless there are others that may be called to mind, and we invite short notes from readers about them.—Ed.]

AN INTERESTING WINTER IRIS.

ONE of the most interesting plants at the meeting of the Royal Horticultural Society, held on the 3rd inst., was the charming little Iris of which we give an illustration. This was shown by Messrs. R. Wallace and Co., and is an albino form of *Iris Vartanii*, its full name being *I. Vartanii White Pearl*. *I. Vartanii* belongs to the *reticulata* group, which comprises some of the daintiest and sweetest-scented of our winter flowers, and was sent to the late Sir Michael Foster by Dr. Vartan of Nazareth, after whom it was named. The variety White Pearl was sent to this country from Palestine in 1910 as a white form of *I. histrioides*. The flowers are pure white with the exception of a yellow bar on the falls.

THE ROSE GARDEN.

NOTES ON THE NEWER ROSES.

(Continued from page 625.)

SOME DECORATIVE VARIETIES.

I HAVE thought it advisable to qualify the heading of these notes. One can keep more or less closely in touch with new exhibition varieties, although that is getting increasingly difficult, but when one comes to ones that are not exhibition varieties, but embrace all the other sections, it is frankly impossible, and even the largest of our trade

of all the decorative or garden Roses is that known as the perpetual-flowering climbers; they are still very few and far between, and it is here that one may reasonably expect the greatest advance to be made in the near future. At the moment they do not number more than a dozen good varieties, and if one excludes the climbing sports, it would be difficult to name a really satisfactory dozen. To compare this with the selection that all the other sections afford shows at once the need and the truth of my statement. We look, then, to our raisers of new Roses with some hope that they will devote their attention to this class; the demand is here and pressing, only the supply is wanting. Very few of the non-climbers are perpetual flowering, the majority giving us an abundance of flowers, it is true, but spread over, say, six weeks instead of six months. In dealing with the climbers I shall not divide them into classes, but will take them alphabetically, indicating, as I come to them, the class to which the individual Rose belongs.

Ariel (Paul and Son, 1910), Climbing Polyantha.—This is a single-flowered Rose of excellent habit and much beauty. It has been described as a single-flowered "Tea Rambler." It has large flowers of a bright pink, with coppery buds, and a pretty bronze foliage that helps the general decorative effect. It has been given the Royal Horticultural Society's award of merit, and is a welcome addition to the singles. It retains its petals for a considerable time and is very free flowering.

Aviateur Bleriot (Fauque et Fils, 1910), *wichuraiana*.—A very pretty small or medium sized flowered variety of a good shade of saffron yellow. Excellent foliage and habit. It has grown well with me this last season, and promises to be an acquisition to the yellow-flowering *wichuraianas*. It retains the colour of its flowers for a considerably longer period than the majority of the yellows.

Climbing Lady Ashtown (Bradley, 1910), Climbing Hybrid Tea.—This, if freely syringed to prevent mildew, promises to be an acquisition. My plant has grown all right and has given me some excellent flowers, especially early in the season. The type is now too well known to need description.

Climbing Richmond (Alex. Dickson and Sons, Limited, 1912), Climbing Hybrid Tea.—This, if fixed, should be particularly useful, both inside and out. As seen growing at Newtownards it was quite satisfactory.

Climbing Souv. de Pierre Notting (F. Cant and Co., 1912), Climbing Tea.—My plant of this has made growths 12 feet long this season. The blooms, one is inclined

to think, have less of the damaged or short outside petal; that is the only fault of the type. I suppose there is hardly a Rose that per plant gives us more flowers than *Souv. de Pierre Notting*, and if this sport will flower as freely—and I believe it will—then we have at once the best yellow climbing Rose.

HERBERT E. MOLYNEUX.

(To be continued.)



IRIS VARTANII WHITE PEARL, A RARE AND BEAUTIFUL WINTER-FLOWERING VARIETY. (Two-thirds natural size.)

growers have given up the task. I only propose in these notes to touch on those varieties that I have grown, or that have been specially recommended to me by reliable judges who have tested them. I shall deal, first of all, with the climbers or semi-climbers, then the dwarfs in their respective classes or sections. I think it will be generally admitted that the section which is the weakest

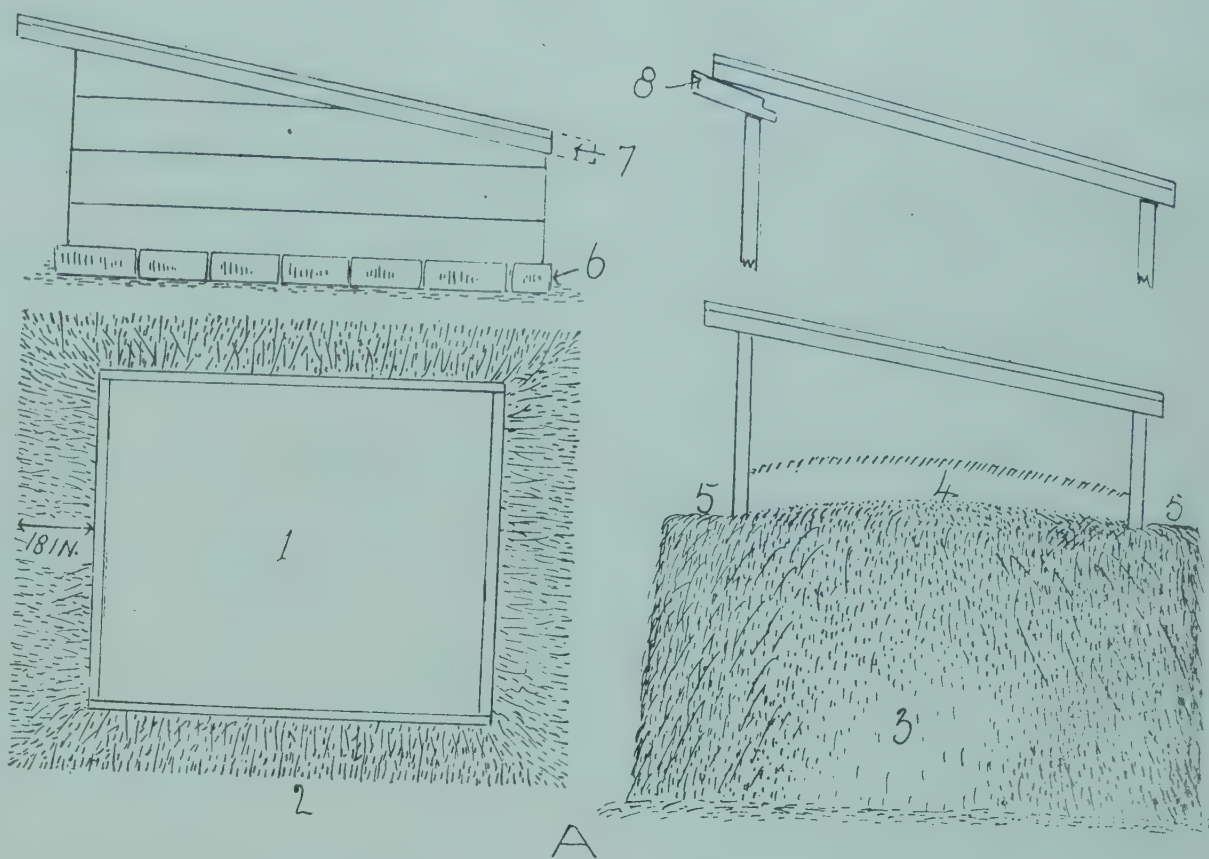
GARDENING FOR BEGINNERS.

HOTBEDS AND FRAMES FOR WINTER USE.

IN the depth of winter, when many buds are hard and dormant, the forcing of certain plants into new growth by means of heat from hotbeds is very interesting and absorbing work. Then there is the use of cold frames for the preservation of many kinds of plants which are required for the flower garden the following summer, and which would not withstand the winter weather if left entirely unprotected. Those cultivators who possess frames are enabled to grow many kinds of plants that it would be almost impossible to have without them. Then, the work of raising seedlings can be engaged in much earlier in the year than would be the case if the seeds had to be sown direct in unprotected borders.

The Material for Hotbeds.—This may consist of stable litter entirely, litter and tree leaves mixed, or leaves alone. The most satisfactory hotbeds are those constructed of stable litter and leaves, in the proportion of three parts of the former to one of the latter. Littery manure, taken direct from a heap which has heated and burned, will not answer our purpose, because the material will not engender heat a second time. The material must be collected fresh every day, and spread out in an open shed so that it cannot heat violently; moreover, it must be turned over every day. When sufficient has been collected, make up the bed quickly; do not half build it and then allow it to remain for several days, exposed, perhaps, to heavy rains. The bed must be considerably wider each way than the frame which is to be placed on it, because there is never much heat near the outer edges of the bed, and, furthermore, a rather wide bed forms a more secure base for the frame and its contents.

Fig. A.—No. 1 shows the frame on the bed (No. 2), which is wider than the frame by 18 inches on each side. The bed (No. 3) must be built up by well shaking



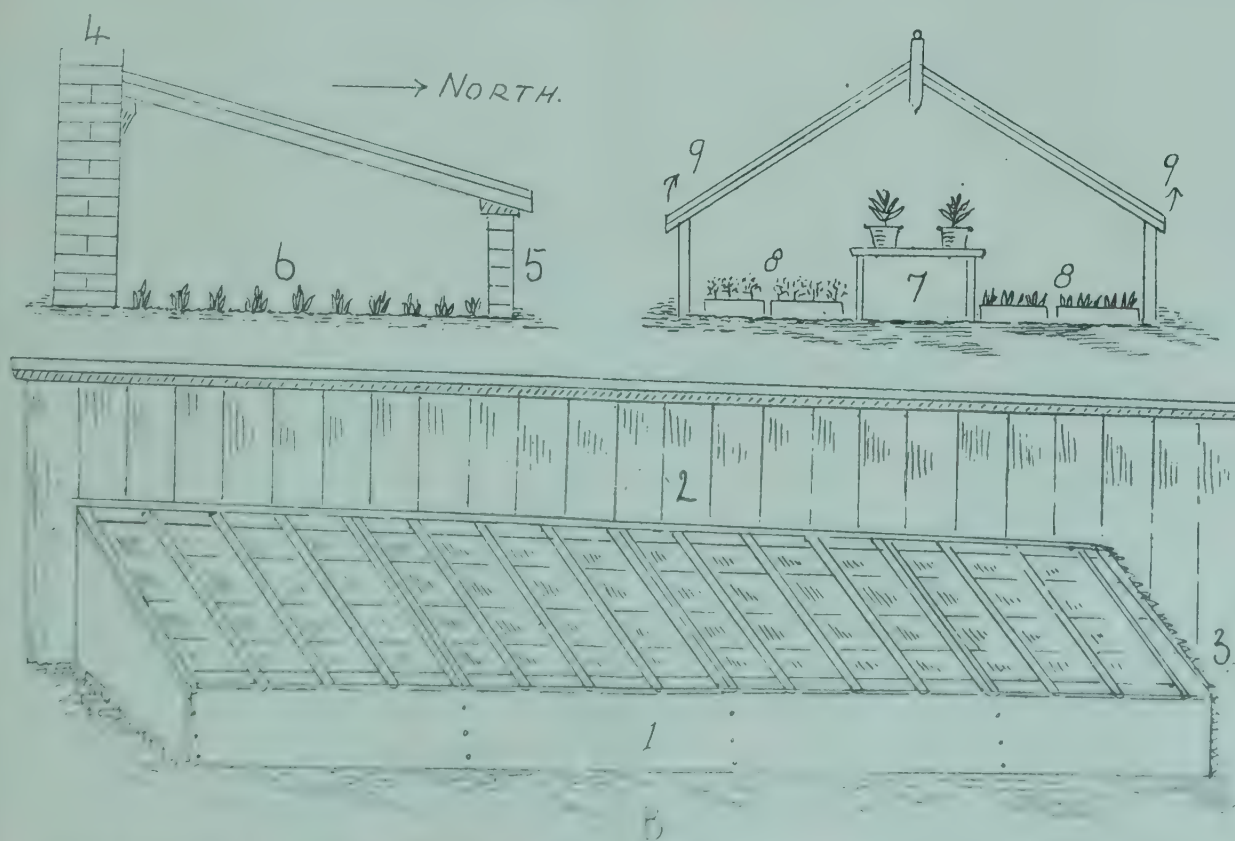
THE HOTBED MUST BE MADE LARGER THAN THE FRAME, AS SHOWN AT NOS. 2 AND 3.

out the litter and leaves, and thoroughly mixing them loosely as each layer is placed in position. As the material will settle down considerably, the bed should be quite 4 feet 6 inches high when the frame is placed on it. The centre of the bed (No. 4) must be higher than the other parts, as it will sink the most. Nos. 5, 5 show the margin of the hotbed beyond the frame. Such a bed is most useful on which to raise seedlings, for propagating cuttings, for the plunging of the pots when plants

have been recently repotted, and for raising early vegetables and salad plants. A cool, wooden frame lasts longer if placed on rows of bricks, as shown at No. 6. It is a mistake to draw up the glass light from the bottom so as to allow rain-water to drip in, as shown at No. 7. When ventilation is necessary, the light should be tilted at the top, as shown at No. 8.

Fig. B.—Many persons are unable to procure manure to build hotbeds, but nearly all possessors of gardens have walls or close fences facing south, and against such structures cheap frames may be placed, as shown at No. 1. The fence is shown at No. 2, and the frame, or frames, may be continued as shown at No. 3. It is really not necessary to have divisions in such frames if used for the raising of half-hardy annuals, vegetable or salad seedlings; but, if required, wooden divisions can easily be put in. A strong board, fastened to posts driven into the ground, will form the front of the frame, and two boards, on edge, the end. A 4-inch by 2½-inch rafter piece, screwed to the fence, will do to fasten the hinges of the frames to, the latter being lifted up in front. No. 4 shows a permanent wall 9 inches thick, and No. 5 a brick wall 4½ inches thick. A frame facing north is readily made, in the bed of which, as shown at No. 6, many kinds of young plants and seedlings which require cool treatment may be safely kept. The span-roofed frame is extremely useful, and should be placed in an open quarter on a bed of ashes, if possible. Where all the plants are small, a low stage may be fixed in the centre, as shown at No. 7, for the accommodation of pot plants; while others, and boxes containing cuttings and seedlings, should be placed at the sides, as shown at Nos. 8, 8. Both lights (Nos. 9, 9) may be raised at the same time, or one at a time, according to the direction of the wind.

G. G.



COLD FRAMES PLACED AGAINST WALLS OR FENCES ARE VERY USEFUL DURING THE WINTER AND EARLY SPRING.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Bedding Geraniums.—Some little care is necessary at this season, or the plants will quickly damp, and what may appear to be a healthy-rooted cutting will rot away at the level of the soil. Give a circulation of air whenever possible, and look the plants over carefully, removing any decayed foliage. Water will need to be very sparingly applied.

Border Carnations.—It is more than likely that with the wet state of the ground, if we get a spell of severe frosts the plants will be lifted. In that case make them firm at the base, and, whenever the state of the ground permits, loosen the soil between them and give a sprinkling of soot around them. If the cinder-ashes that were placed around the plants have been washed down, renew them, as they make the plants immune from attacks by slugs.

The Rock Garden.

Daphnes.—Few flowering shrubs are more highly appreciated on the rockery than one or two of the species of these fragrant shrubs, and their establishment is not always easily effected, thus making them the more valuable. *Daphne Mezereum* and its white variety are not difficult subjects for the bolder portion, but *D. blagayana* is a treasure worth any amount of trouble to establish. *D. Cneorum* and variety *majus* are both beautiful for flowering in April and May. In sheltered sites they may be planted out of pots now during open weather, but, if well established in pots, it will be preferable to allow them to remain and carefully transplant in early spring. They like a fairly damp position, but not waterlogged, as a sour soil is fatal. Peat or decayed leaf-mould and road sand should be incorporated freely, and an open position chosen for them.

The Shrubberies.

Variegated Shrubs.—Providing, of course, that planting is discriminately carried out, many of our shrubberies and surroundings are considerably livened up by the use of deciduous and evergreen subjects bearing variegated foliage, and appended are a few that may be planted at this season with the confidence of their proving free-growing, valuable subjects. The golden and silver variegated forms of *Aralia chinensis*, *Cornus alba Spæthii* and *C. alba variegata*, *C. brachypoda variegata*, *C. Mas elegantissima aurea* and *C. M. variegata*, *Diervilla florida versicolor* and *D. f. variegata*, *Forsythia viridissima variegata*, *Hibiscus syriacus variegatus*, *Kerria japonica variegata*, *Acer Negundo variegata*, *Philadelphus coronarius aureo variegatus*, *Rhamnus alaternus variegatus*, *Ribes nigrum variegatum*, *Aucubas* (in variety), *Elæagnus pungens variegata*, *Euonymus radicans variegata* (for the border), *Hollies* (in variety), *Ligustrums*, *Osmanthus* and the variegated forms of *Vinca*.

The Hardy Fruit Garden.

Strawberries.—During suitable weather the beds out of doors may have a mulching of well-decayed manure applied to them.

Standard Apples.—These and other trees, such as Pears and Plums, that have become well established, and especially those that bore good crops last year, will benefit by having a dressing of good farmyard manure applied to the surface. I prefer to add this and cover over with just a sprinkling of the surface soil.

Peaches and Nectarines.—The pruning of these fruits is far better deferred till the early spring, as the young growths are sometimes apt to die back. The work may then, of course, be completed before the buds are on the move. The planting of trees may yet be done when the weather permits, though I prefer planting earlier while the ground is warm. Dwarf trees are usually preferred, with standards to occupy the top part of the wall while the dwarf-trained trees are establishing themselves, when the standards should be removed entirely.

Plants Under Glass.

Begonia Gloire de Lorraine.—Endeavour to keep these plants as attractive as possible by carefully attending to their requirements as regards watering.

Be careful to avoid excess and give a little stimulant, avoiding the use of strong manures, which cause the flowers to pass quickly. Keep the flowers picked off and any tying-up seen to. These plants are wonderfully pretty if suspended from the roof of a warm house in baskets. The female flowers are interesting to watch for, and are usually terminal.

Amaryllis.—A small portion of the bulbs may be top-dressed or potted and started for flowering in another six weeks or so. These will do much better if the pots can be plunged in a little bottom-heat and kept damped over.

Chrysanthemums.—Cuttings of the plants that require a long season of growth for producing large blooms will very soon have to be inserted. Select those that come away from the rootstock for preference and choose sturdy stock. Little heat will be required; in fact, they may be rooted in a cold frame.

Fruits Under Glass.

The Starting of Houses.—As the houses and trees are got in readiness, until the time for starting into growth arrives they should be kept as freely ventilated as possible. Peach trees should, before they come into bloom, be fumigated so as to destroy any aphids that may be present, as this cannot be done while in flower without the possibility of injuring them.

Early Vines.—These require a little higher temperature than Peaches, and once or twice a day, as the weather allows, the rods should be damped over. By this I mean merely spraying, which will induce them to break more evenly, and for convenience and to encourage a more even break, the rods may be brought down and tied horizontally together, as the temperature is more even and it prevents a rush of sap to the extreme height, which occurs when they are tied up.

The Kitchen Garden.

Preparation of Ground.—While the ground is hard, continue to wheel manure on to the various plots ready for digging or trenching, and proceed with the work on heavy land as soon as possible, leaving the surface in a rough state so that the weather may act upon it. Where there is a natural deficiency of lime, strew some over the surface. Wood-ashes and other burnt garden refuse may be similarly employed, with the best effect.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree, Heris.

FOR NORTHERN GARDENS.

The Flower Garden.

Bad-Weather Occupations.—Iron stakes may be repainted, labels made and written on, Dahlia and Hollyhock stakes repointed and repainted, and wooden stakes that are much decayed at the points split and used again for lower-growing plants. Thick Bamboo canes split quite easily and are suitable for lighter-growing material. Assort them and tie them in bundles to be ready for summer.

Split Laths.—Plasterer's laths split in two or three and the edges trimmed and each pointed make durable stakes. They are not at all expensive, and a clever hand with his knife can manufacture a very large number in the course of a few bad-weather days. The ends may be charred, or at least be painted.

Seed Cleaning.—This is another necessary occupation which is best overtaken when outdoor labour is impossible. Bags with names ready written on should be prepared, and each variety cleaned and sealed before another is taken in hand. Carnation and Gladiolus seeds I keep in their seed-vessels till the time of sowing, but most others can be cleaned now and got ready for sowing.

The Vegetable Garden.

Ground Work.—If the greater portion of vacant ground has been cultivated, manure can be wheeled on during hard frosts and spread ready for digging in as opportunity and weather permit. I hesitate to cultivate ground while wet or covered with snow; but many who have still most of their garden undug and untrenched have no option but to proceed when they have time.

Composts.—All the accumulated rubbish of the past year should be turned, broken up and left in a neat heap for another year, and older material that has become decayed enough may be wheeled on to quarters yet to be trenched, to be buried well beneath the surface. It is of greater utility in heavy soils, where it may be lavishly used, than on those of a light nature.

Scotch Kale.—This vegetable is of great value in March and April. It is hardiest when planted on poor, hard soil, which may now, or soon, be enriched by means of a dressing of manure run along between the rows, to be forked in either now or later. Very often this vegetable is cut in a wasteful manner, the whole head being removed. A larger quantity of usable material is secured by cutting the leaves, one or two at a time, from a plant. These make an excellent substitute for Spinach, or may be cooked as a dish on their merits.

The Plant-Houses.

Hydrangeas.—Young plants should have been rested sufficiently to force for early blooming. They stand and appreciate a high, moist temperature, but till root-action recommences do not need much water at the root. Only the strongest plants with prominent buds should be selected for this purpose.

Hippeastrums.—If these are wanted early, a portion of the stock should be put into a house with a temperature of 55° to 60°. They will need no water at the root, but may be placed under the stages or anywhere till the points of the flower-scapes have pushed a little, when a higher temperature with moisture will cause the flower-stems to elongate rapidly.

Shrubs.—Such easy-to-force plants as Flowering Currants and *Rhododendron præcox* may be introduced to a structure with a medium temperature, in which they can be placed under stages or in any odd corner till the buds are at the breaking-point. Moisture is one of the essentials, and, if frequently syringed, water at the root will be seldom required.

Roses.—Those growing in borders should now be pruned. They are usually climbing varieties so cultivated, such as *Niphetos* and *Reine Marie Henriette*, and these must be distinguished, the last named requiring the few shoots that were allowed to mature to be reduced to strong wood capable of producing blooms. The first named, on the other hand, needs only to be carefully thinned. Tie the shoots out so that there is sufficient space for the young growths to fill without overcrowding. The addition of well-enriched compost, with a little dried blood added, will help them to break strongly.

Hardy Fruits.

Scale.—On Pear trees scale insects sometimes effect a lodgment, and it is difficult to exterminate those which hibernate out of the way close to walls. I have painted a badly-infested tree with sweet oil, omitting the buds when painting, with the best results. Trees only partially affected may be sprayed, and where Plum trees are attacked spraying would be best for these too.

Apple Trees in Grass.—These should not be forgotten when dispensing the material from the compost and manure heaps. Sometimes I apply the manure, sometimes the compost, and both have a good effect in promoting a vigorous growth and increasing the bulk of fruit. Remains of wood fires are also valuable, but these are reserved for Apricots on a grass-covered border and for dessert Pears. All may be dressed with these materials at this time of year, spreading them nicely all over the surfaces so that every part may have an equal share and that the materials may be well weathered.

Raspberries.—If not done up for the year in autumn, these may now be taken in hand. Usually ours are finished, with the exception of cutting off the weakly points, which may be done now. If cow-manure can be had, it affords one of the best stimulants for this crop, but it should lie nine to twelve months before using. Some object to digging between the rows and stools of Raspberries. Personally I have no objection, but the spades are not used too near the plants, when deep digging results in root-pruning and the production of new roots into renewed soil annually.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

TWO OF THE FIRST ENGLISH FLOWER BOOKS.

THEIR AUTHORS AND CONTENTS.

PARKINSON'S "Paradisus" is usually alluded to as the first work of any consequence in the English language in which the wants of the flower garden are placed first and foremost. This is undoubtedly correct if the intention of the author is the only consideration; but it is not wholly so if we look at the materialised expression of his mind in the book which he produced. It is impossible to entirely throw off the spirit of a long-accustomed environment all at once. Parkinson was no exception to this rule; so while we recognise the voice of the "Paradisus" to be that of the garden, the form is undoubtedly that of the herbal. Personally, I would describe this famous folio as the book of a transition period between the supremacy of the "physic" and the coming of the flower garden. The first half of the seventeenth century was the chrysalis stage, when the ability for healing was being discarded as the first and only desideratum of its occupants. Rea's "Flora seu de Florum Cultura" and Gilbert's "Florists' Vade Mecum" performed a valuable office at the first expanding of the new wings of beauty and pleasure which were henceforth to be distinctive marks of the English garden. It is this that gives them their great interest and historical value; for they mark the beginnings of a marvellous development, of which the end is still far out of sight.

Those who only know the exteriors of these two books may possibly think that I have coupled together two very unequal yoke fellows (one is a small folio and the other only a 12mo.). Size, however, is not always everything. It is not so here. There was work for both to do, and the numerous editions through which they passed clearly shows us that they did it, and that it was much appreciated. Moreover, in one sense they were not really two. The "Vade Mecum" was but the continuation of the older and larger "Flora," and breathed the self-same spirit, for its author had lived for some considerable time with John Rea, whose only daughter he had married, and through whom, after his father-in-law's death, he had inherited the garden in which his experience had been gained. The younger man alludes to the elder as the foremost florist of his time, whose collection of Tulips was unique, and who possessed among other rarities for which he was justly and widely known some of the finest July-flowers and Bears'-ears then in existence. His "long converse" with such an one gave him knowledge and skill; his good fortune in having such a garden as an object-lesson gave him practical experience; while his own early training and inclination enabled him to profit by all he had heard and seen:

If Jackanapes on Giant's shoulders be,
He hath no eyes, or else can farther see.

In this spirit he sends out two years after his father-in-law's death what he calls his "Pocket Companion to all Lovers of Flowers and their Propagation."

After this preamble I pass on to record what is known of the lives of these two old-world gardeners, and then, having done this, I hope I may take my readers with me when next week and the week following we turn over some of the pages of these two most interesting relics of the past—

the "Flora seu de Florum Cultura" of Rea and the "Florists' Vade Mecum" of Gilbert. But little is known of the former beyond what we can gather from his own writings. We have no knowledge of his birth or parentage. He seems to have lived the greater part of his life at Kinlet, near Bewdley in Worcestershire, a rural district, not naturally such an one as would be chosen for a garden, and which, in addition to its unkindliness, was very much out of the world. According to the notice in the "Dictionary of National Biography," he followed the calling of a nursery gardener; but I am disposed to doubt this because of certain expressions which he uses in his introductory letters, which, after the fashion of the time, are inserted in his book. In the preface to the reader in the first edition (1665) he says: "Forty years are now completed since first I began to be a Planter and to dedicate more time than I could well have spared for Diversion to that lovely Recreation"; and, again, that he finds himself in old age more happy in this "retired solitude than in all the bustles and busie employments of my passed days." To Sir Thomas Hanmer he writes that but for his encouragement and help he would have been "less knowing in this delight," and that he would "long since have grown out of love with his garden." He certainly planned the gardens at Gerard's Bromley for Charles, the fourth Baron Gerard, but I would suggest that he did this more as a friend than as a professional. It was to this man that he dedicates the first edition of his "Flora," and to the successor in the title, Digby, the second in 1676. Rea died in November, 1681, leaving his holding to his daughter Minerva, who was then the wife of Samuel Gilbert, and his collection of Tulips to one Thomas Tassell of Wyche. As far as is known, he was a one-book man, for his "Flora" in which he recorded his life experience as a "Planter" and florist is the only work of his of which there is any record. JOSEPH JACOB.

(To be continued.)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

CARNATIONS FAILING (Wimborne).—The example sent had been bored by a wireworm, the central part of the stem having been cleared out entirely. Had it not failed from that cause, it would probably have done so owing to the poor attempt at layering evidenced by the example sent. Contrary to custom, the nib had been formed on the upper surface of the layer instead of underneath, while its feather-edged tip or point would almost preclude the possibility of its rooting. Moreover, the cut was little more than a quarter of an inch long instead of fully 1 inch, beginning immediately at the base of one joint and extending to the next. Such imperfect work may be responsible for more failures than the pest to which we have referred.

CARNATIONS AND SOIL (E. G. F.).—The plant you submit has been attacked by stem eelworm, which, in the existing state of things, is likely to be transmitted to the young stock. Nothing short of a complete change of stock and soil is calculated to be of much service.

HERBACEOUS BORDER (Langley).—There are many plants which do quite well over chalk, the presence of which is not so important as the depth of soil available. If you will give us an idea as to the depth of soil and the size of the border you have in mind, we shall be in a position to help you. It is the width of the border that is material, as obviously the stately plants suited to a 12-foot-wide border would be out of place in one of 4 feet or 5 feet in width.

DARK PURPLE CARPETING PLANT (P. C.).—*Viola cornuta atropurpurea* is the plant you require. It is good in colour, an excellent carpeter of the soil, albeit a little loose towards the end of the year, and a great bloomer. You could plant it now, a few weeks hence, or in spring, say, March, if a late summer display is most desired. Even when not in flower, the fresh green of its foliage is a great gain. Happily, too, the plant is a good perennial and may go on for two or three seasons in your district with annual cutting and mulching. You should write to Messrs. Gunn, Olton, near Birmingham, who specialise in the plant.

WALLFLOWERS LOOSE IN BEDS (J. L. S.).—The Wallflower is a sparse-rooting subject, and this, in conjunction with your heavy and wet soil, is largely responsible for the trouble. It is highly probable, too, that owing to the wetness of the soil the original planting was insufficiently firmly done, or the plants insufficiently deeply planted to get a firm hold of the soil. What usually happens in the case of wet soils is that the plant is swayed by wind and storm, and, a socket-like, watertight hole resulting, the plant not infrequently perishes from frost, which gets into direct touch with the plant. In all the circumstances we incline to the opinion that the planting is chiefly at fault. We say this advisedly, inasmuch as for years we have had to contend with one of the worst types of clay soil, and the planting, too, of large numbers of these same plants. If the soil was abnormally wet, the planting was done from a plank, having first strewn the surface of the bed with light material, Coconut fibre or old potting material. The method of planting was that of the small hand-fork for each plant, applying finger and thumb pressure to each, the lighter material being worked close to the plants meanwhile. You should do likewise. To keep the surface soil "loose and open" does not imply that the plant should be at liberty to indulge in calisthenic exercises. All plants should have the soil so pressed about their stems that they are held firmly in position, and water and air in contact directly excluded thereby.

TREES AND SHRUBS.

HEDGE OF VERONICA (W. H.).—The best time to cut your Veronica hedge back would be April. If cut back now it would look very ugly all the winter and some of the branches would probably die, whereas if the work is deferred until April new shoots will appear almost at once and cover up the old cuts. In the event of the weather being very dry when the work is done, you would do well to syringe the plants twice a day until the new shoots put in an appearance.

TO REDUCE THE SIZE OF AN OLD HOLLY HEDGE (H. E. C.).—It is not advisable to cut your Holly hedge back severely at the present time, but you may safely cut it back by half next April. If cut back now no new wood can be made for at least six months, but if the work is done in April new shoots will appear almost at once. The sides should be cut in as well as the top, and if the centre of the hedge is choked with leaves or dead wood, such should be removed. A good hosing would have beneficial results, for it would wash away any accumulation of dust or dirt from the bark. It would not be advisable to cut out the old stumps, for that would tend to weaken the hedge and cause gaps. You will need to be careful for several years with the pruning, for if the top shoots are not kept severely checked they will rob the side shoots and the hedge will not thicken well. Should the weather be dry when the work is done, a good syringing twice a day for a few weeks would help in the production of new shoots. A surface-dressing of well-rotted manure would also do good. If there are any very thin places in the hedge you may be able to insert a young plant or two here and there. April is an excellent time for planting Hollies.

FRUIT GARDEN.

MUSCAT GRAPES GONE WRONG (G. C. W.).—A too cold, damp atmosphere at night when the Grapes are dead ripe will bring about shanking, especially if the Vines had received a heavy watering a day or a few days before. It is evident that the Vines had a chill or set-back from some cause, and therefore the best thing you can do is to endeavour to bring the Vines back to good health again. To this end we would lift the roots in the inside border to within 18 inches of the front wall. To do this you would have to open a trench at the bottom of the border furthest from the wall. (The depth of the trench will depend on how deep the roots are; you must get to the bottom of them.) Remove all the old soil, and be careful to preserve intact all the roots you come across. Replant carefully, after cutting back the cankered and lifeless roots, in fresh, best Vine soil. The outside border should be served in the same way next year. By doing this you will obtain a nice healthy body of roots, which will carry your old Vines successfully through many years of good cropping again.

THE GREENHOUSE.

PELARGONIUMS (*Amateur*).—In order to obtain the best results from Pelargoniums in the winter, they should be firmly potted in some good soil, mainly consisting of loam, lightened by a little leaf-mould and sand. When the plants in the pots are well furnished with roots, an occasional stimulant may be given, but care must be taken that it is not too strong. Stood in a sunny spot and not overcrowded, the plants will make good, short-jointed wood, such as will flower well in the winter. The flower-buds should be picked off when the plants are taken into the greenhouse, where a light, buoyant atmosphere should be maintained.

NERIUM OLEANDER (*H. R.*).—In this country the Oleander needs the protection of a greenhouse, or, at all events, to be so situated that it is quite safe from frost. The Oleander is naturally of a loose, Willow-like habit of growth, and if the leading shoots are frequently pinched in order to ensure a neat bush, it will not flower in a satisfactory manner. It needs to be potted in ordinary compost, such as a mixture of loam, leaf-mould and sand: and the rooted sucker which you removed from the parent plant would have been all the better if leaf-mould or peat instead of manure had formed one of the ingredients of the potting compost. As your plant is in a sorry plight, we should advise you to wait until the end of February or the early part of March, and then repot it, taking away as much of the old soil as can be done without injury to the roots.

THE COST OF BUILDING A GREENHOUSE (*Ould Oireland*).—The cost of the structure, not including the brickwork, would be about fifteen shillings per foot run of house. If there are no side-lights, the cost would be about ten shillings per foot run. You do not state how high the brick walls would be. You can easily ascertain the cost of the walls locally. The woodwork should be of best red deal, well seasoned; 21oz. glass for the roof, 16oz. for the sides, bottom putty, no top putty, the squares of glass being held in position by sprigs. The wood must be primed, and have one coat of paint before glazing and two coats after glazing. The cost of boiler, flow and return 4-inch hot-water pipes, expansion box, air pipes, rubber joint fittings, stack pipe and stoking tools would be about eight pounds ten shillings.

ROSE GARDEN.

SAMPLE OF SOIL (*Appreciative*).—The soil sent is fairly good for Roses, but it would be much improved if you could add some pulverised clay, to give it more body, and it will need to be well enriched with good, well-decayed manure. Add some basic slag to the subsoil when trenching, and as you plant your Roses give each plant a handful of bone-meal.

ROSE SPORT (*Rosarian*).—The possibility of your having to leave England is a very great drawback to success with your plant. In such a long journey as that to Australia in the spring, you would most certainly lose the tip of the shoot; but we should say the Rose would give the sport, even though the tip of the shoot died back. Generally, the sport will come true from any eye springing from the same growth. The best plan, now that you have missed budding it, would be to get your local nurseryman to graft a plant for you. Then dig the plant up at once and put it into a small pot. If you go to Australia you could pack the tree in the pot in a box, and you might be successful with it. A few Briars culled from the hedges now would enable you to bud the sport next summer, providing you do not leave England.

DOROTHY PERKINS AS A POT ROSE (*R. W. D.*).—You should have put the plants into a greenhouse and kept them growing after you had cut them back. The best way to handle such Roses is to reduce the old growths to about one or two, and then place the plants in a structure where a nice growing atmosphere can be maintained, and a temperature of about fifty-five degrees by night. Plenty of atmospheric moisture, and also moisture to the roots, will soon induce new growths, which by August would be some 15 feet to 20 feet long. The plants are by that time ready to place outdoors. Tie the growths to tall canes in an upright position, and stand the plants upon ashes in a sunny spot, preferably against a greenhouse. They will ripen off well, and in November may be placed in a cold house. When you wish to start them, twine the growths around canes in a pyramidal or columnar form, or any shape you like, and give them gentle heat at first and plenty of air. About fourteen weeks should be allowed from the starting to the blooming; but as soon as the buds show colour, remove the plants to a cool house, where development will be slower, but the colour much improved. During the growing period abundance of water is needed, also frequent syringings to keep down red spider.

MISCELLANEOUS.

CELERY LEAF BLIGHT (*J. S.*).—You are quite right in taking the fungus on Celery to be different from *Cercospora*. In our experience—and we have examined hundreds of diseased Celery plants—*Cercospora* is now rarely found, the common cause being *Septoria petroselinii* var. *Apii*, the fungus you describe so well. You will find some descriptions of *Septorias* in "Cooke's Microscopic Fungi." The *Perithecia* are not like those of the *Erysiphe*, and the fungus itself grows inside the leaf, not outside. It is difficult to find a book giving recognisable descriptions of all the fungi likely to be met with, but perhaps Massee's "Diseases of Cultivated Plants" would meet your need.

Saccard's, which contains descriptions of all known fungi, is in twenty large volumes, and costs about eighty pounds.

NAMES OF PLANTS.—*J. B.*—*Tecoma radicans* (the Trumpet Flower).

NAMES OF FRUIT.—*A. V. H.*—Apples: 1, Lady Henniker; 2, Wellington; 3, Norfolk Beautif. Pears: 1, Winter Nelis; 2, Brown Beurée; 3, Baronne de Melo.

BOOKS.

Tulips.*—As an editorial footnote to the preface tells us, this is the first book entirely devoted to Tulips published in English. I hope it is but a forerunner, and that before we are much older the long-needed monograph of the genus will issue from the busy brain of our own countryman who, having completed his work on the Iris genus, is now turning his attention to Tulipa. But a monograph on botanical lines only will still leave a void, for as a garden flower the Tulip possesses a history and literature as sensational and interesting as any plant. The compression necessary to keep this new volume of the "Present-Day Gardening Series" uniform with its brethren has, to my mind, stamped it with the nature of a *hors d'œuvre*, to whet our appetites for the banquet we expect from the hand of the author, whose love of the Tulip for its own beauty and his knowledge of its past history, combined with the possession of a singularly rich collection of books and papers relating to it, all point so clearly to his being the right man to prepare the feast. So far as the book goes it is excellent, and if the writing of it has stimulated his desire to go further, we may forgive its brevity.

The late-flowering Tulips are gaining rapidly in favour. The gardening public is at last beginning to realise their beauty and true economy. Much less frequently than formerly, when I speak of my May heyday of Tulips, do I hear it said: "Tulips now? Why, ours have been over a long time."

Growing Tulips still means for a few poor benighted souls the forcing of prim little Duc Van Thols. How I do dislike their mean proportions and crude colours, their anæmic leaves and precocious appearances on Christmas dinner-tables, caricatures as they are of the real thing. Other few are still content with a few pots or bedded-out designs of early Tulips, both double and single, dumpy and stiff though many of them be. It is such an extravagant form of gardening, too, for very seldom do any of them find an English garden a sufficiently congenial home to induce them to settle down and produce a good flowering bulb for the next season, and Dutch-grown bulbs must be bought to renew them. The advent of the Darwins and the revival of the Cottage Tulips have taught us that instead of purchasing fresh stocks each season, anyone with patience for reasonable care, and a soil richer than cinders and less solid than blue lias, can confidently look for an annual increase of their bulbs. Not only in Europe, but in America and New Zealand there is a yearly increasing demand for May-flowering Tulips. This has produced the sudden rise in prices mentioned in the introductory chapter; but to counterbalance this evil for the planter, the author confesses that it has induced him to devote a larger space to their consideration, and prophesies that they will prove to be the twentieth century Tulips.

The book is well thought out and planned. Its twenty-two chapters vary much in length, but each one is devoted to a single aspect of the Tulip. This tends to clearness and makes the book valuable for quick reference. Chapter II., on "Chronology

* "Tulips," by the Rev. Joseph Jacob; price 1s. 6d. net.

and Bibliography," is a model of the compression of important information into a small compass.

In a few instances one would like to have the references to the authorities given, e.g., the first notices of double and of Parrot Tulips.

Chapter III. is a delightfully clear account of the Tulip mania of the seventeenth century; the fourth, a vocabulary of the technical terms that have grown up among the cultivators of the flower.

Then nine chapters deal with various divisions of Tulips, such as Early, Double, Species, Florist, &c. The useful chapters on cultivation under glass and in the open; on colour planning, propagation and diseases, are full of practical hints and warnings—the fruits of years of personal experience—and would alone justify the publication of the book. In addition to the carefully compiled lists of the best sorts, given in the chapters devoted to the divisions, there is one on the selection of varieties for various uses that seems very useful, especially for the beginner, to whom it should be a saving of expense and disappointment if carefully studied and followed.

As it is customary in a notice of this kind to hunt out and pillory misprints or mistakes, I have searched carefully, but find little to report. I hope to see a second edition, and in it a further simplification in the vocabulary of the definition of bizarre and byblømen. At present, to the uninitiated it reads as though T. mauriana or any self yellow Tulip might be a bizarre, in that they possess yellow bases. Under the heading "Roses" the mention of the markings being upon a white ground makes the matter clear for all.

Under "Italian," on page 20, I should like to see "A generic name for all those species," &c., altered to "A name for that group of species found," &c. On page 27 Proserpine is mentioned twice, first among the red and cerise forms, and again among the various. Good though it be, this is unfair and, I feel sure, unintentional favouritism. Page 48: Zwanenberg Nurseries have acquired a new name in the compositor's hands, I fancy. Page 49: Cramoisi Brilliant has changed an "i" for an "e." T. elegans is in its right place on page 36, among the Cottage varieties, and, I believe, appears wrongly among the species (even qualified, as it is, as a doubtful one) on page 52, for I have been told by a great Dutch authority that elegans, e. alba, retroflexa and fulgens all appeared in the same seed-bed and were of garden origin. I am sorry to find no praise of fulgens in the book; the tallest of all and of so fine a crimson, I rank it as one of the very best for massing in borders. It has a very fine effect among Iris foliage, between groups of late-flowering ones such as I. ochroleuca and Monnieri, it is very useful to give colour before they are out.

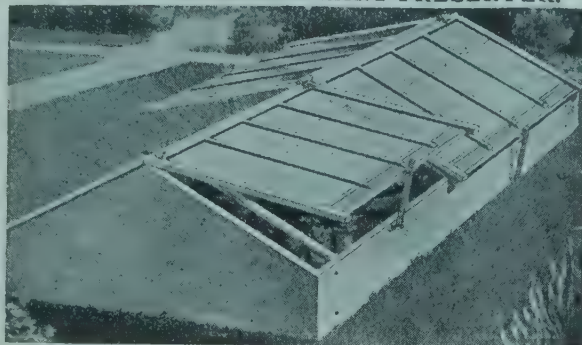
In lines 11 and 12 on page 63 the little word "an" has played general post and needs another move; and winter has usurped the place of summer on page 78 as relentlessly as it often does in an English June.

The coloured plates are marvels of beauty to find in a book of such low price. Especially excellent are No. VIII., of Euterpe and Frans Hals, and No. III., of Suzon and Farncombe Sanders. But I must grumble at the arrangement of No. VII., in which Sir Harry utterly dwarfs the really taller Solfatara. The colouring is delightful in all except No. V., where the orange shades of Prince of Austria and Fred Moore are not done full justice; but, after all, it may be they suffer from being of so difficult a colour to reproduce and from the charming delicacy of effect in the other plates. E. A. BOWLES.

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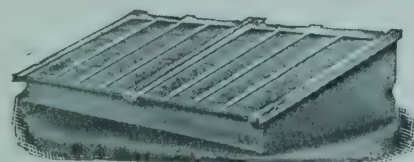
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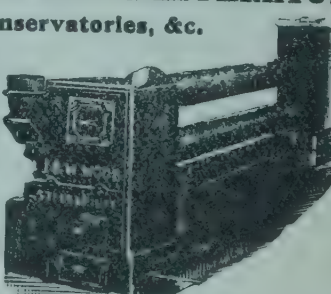
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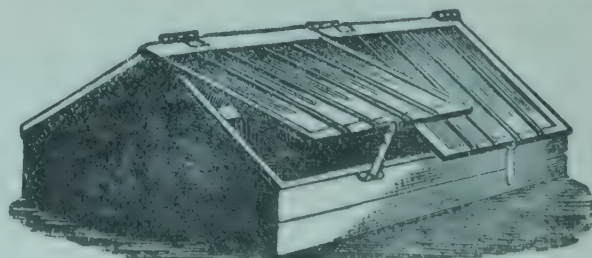
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Hardy Perennials and Herbaceous Borders.*—

The best part of this bulky volume of 300 pages is, in the writer's opinion, its get-up and general appearance, which, save for the muddy effect of some of the coloured plates, merits all praise. As a companion to others on the bookshelf it would be quite goodly to look upon; but as a guide, counsellor or friend in the garden, showing what to do and when and how, the book is by no means all that could be desired. In a volume of such extent room might reasonably have been found for sound, solid, practical advice on all the more important phases of hardy plant gardening; but, instead of this, information of a weak or indirect nature largely prevails. Never in the history of gardening was there a greater "hungering and thirsting" after practical knowledge than to-day, and never a time when a book devoted to the subject requires to be treated from the purely gardener's assistant point of view. Such, however, is not to be accomplished by writing round a theme, by giving the dates of the introduction of many plants, or by platitudes which leave the would-be seeker after knowledge no wiser than he was before. Quite early in the book (Chapter II.) the author is in error in attempting to define the term "herbaceous." We are told that "a plant is herbaceous when its foliaceous parts—its leaves and stems—die quite away each year," thus ignoring the abundant testimony of the garden that there are evergreen and deciduous herbaceous plants, just as there are evergreen and deciduous shrubs. This kind of error—the floundering of the inexperienced—is perpetuated and emphasised in *Iris*, *Hellebore*, *Meconopsis* and many more throughout the book. Conversely, *Romneya*, cited as the "Californian Tree Poppy"—the italics are mine—is also cited, page 257, as "a magnificent herbaceous plant," and the two are impossible of reconciliation. In parts of the British Isles the *Romneya* is suffrutescent, in its native home quite so; hence the "Tree." In other parts of these islands it is cut down, sometimes by frost, sometimes with the knife. Then we are told, page 263, that "the *Statice*s are mainly shrubby"; but where is the shrubbiness of such as *latifolia*, which presses its prostrate rosettes of leaves close upon the surface of the ground? or, if "shrubby," why does the author include them with herbaceous plants? The term "herbaceous" embraces all plants that are *non-woody*, whether annual or perennial, tender or hardy, bulb or tuber, deciduous, or with evergreen leaf-tufts or something akin. These broad and unassailable facts the would-be mentor in such matters should long ago have laid to heart; for how can the pupil be right if the schoolmaster is wrong? Journalistically, the book in some of the earlier chapters is good; but from the practical, reliable and helpful standpoints it is not. The extensive border plan given at the end of the book and arranged by Mr. F. Fitch, gardener to Sir G. Faudel-Phillips, is eminently practical and well thought out.

The Rock Garden.†—Mr. Reginald Farrer, the author of this book, one of the series of "Present-Day Gardening," is so well known as an enthusiast in rock and alpine gardening that in a book of this kind much will be expected of him. In large measure the expectation will be realised; the author, writing as he himself declares, "especially for the smaller grower," having apparently bridled his tongue—or pen—has not permitted himself his usual flowery flights of fancy. The need of the moment—it applies to all books on horticulture alike—is for practical information on what to

do and how to do it. Many, indeed, have had their foretaste of alpine gardening; they have grown their patch of *Alyssum* and are awaiting the "guide, counsellor or friend" to lead them in safety to the more dizzy heights of *Eritrichium*. Both figuratively and practically Mr. Farrer accomplishes so much, and out of the rich fund of a ripe experience he tells his readers what to do, and, incidentally, what *not* to do. Like other cultivators whose experience is also ripe, Mr. Farrer has discovered that "no special and no infallible recipes for success" can be laid down. "Each district, each climate, has its own peculiarities and trials"; and "you can only be certain as to fundamental guiding lines," with all of which we cordially agree. The author is, perhaps, in his most instructive mood in Chapter I., which treats of rock garden building. He tells of two essentials in creating it, viz., an open situation and perfect drainage. "Never try to grow alpine," he says, "anywhere under the influence of trees." This point he drives home in forcible language thus: "A dank hollow is doom: drip is damnation." The disposition of the rocks in relation to plant life and sustenance is, among other items, well considered and eminently useful and practical. One cannot agree with the author, however (on page 20), that alpine "like best to be moved at the highest moment of their vitality—that is, at, or just after, the zenith of their flower." I have proved the contrary a hundred times to my own satisfaction. Moreover, it is largely opposed to the vital principle of root production, and therefore unsound. A chapter on the moraine is full of interest and instruction. Important groups of alpine—*Primula*, *Campanula* and *Saxifraga*—are, among others, freely dealt with. The book contains eight coloured plates, those of the *Saxifragas* being excellent. There is a preface by Professor Farmer. Errors, so far as we have observed, are not numerous, though we should regard the *Saxifraga* given in Plate IV. as *S. cochlearis* minor and not *S. cochlearis*. A more obvious error occurs at page 46, where the author includes the spare-growing, single-flowered *Dianthus* × *Atkinsonii* among others considered undesirable because of their "squawking podginess" or "double Sweet Williamish" likeness, notwithstanding which the book is excellent.—E. H. JENKINS.

Christmas Gifts to Gardening Friends.—To those of our readers who are in doubt as to what to send their gardening friends for Christmas or the New Year, we would suggest that they send them *THE GARDEN* every week. By so doing, a useful and interesting present is bestowed, and one that will serve as a reminder of friendship long after other presents have been discarded. For 6s. 6d. a copy will be posted direct to any address in the United Kingdom for twelve months, or abroad for 8s. 9d.

A New Garden Village in Scotland.—Mr. Charles Carlow and his fellow-directors of the Fife Coal Company, who are now developing their new colliery at Valleyfield, near the ancient Royal Burgh of Culross, are engaged in the provision of a village on Garden City plans, which will be an object-lesson to other companies intending to provide accommodation for their workmen. The houses are arranged in crescents, twenty-four forming a side, and are of neat character and one storey high. In front of each there will be a flower plot, and a garden of about one-tenth of an acre behind. The village will be further ornamented by planting the central space of the crescents with shrubs. The plan is well conceived, and is a vast improvement on the miners' rows so common in Scotland, and which have no provision, as a rule, for a garden.

"Country Life" for December 21 contains, among other articles, an illustrated account of "Nailsea Court," by H. Avray Tipping; "Tale of Country Life: Flower in the Crannied Wall," by Lucy H. Yates; "Wild Country Life," by H. A. Bryden; "The Fur Seals of the North Pacific.—II." (illustrated), by Hugh M. Smith; "In the Garden: Carnations for Winter Flowering."

CATALOGUES RECEIVED.

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Mr. J. Tregaskis, Caxton Head, High Holborn: Rare Books.
Mr. E. Joseph, 48A, Charing Cross Road, London, W.C.: Second-hand Books.
Messrs. William Brough and Sons, 312, Broad Street, Birmingham: Books.

PUBLICATIONS RECEIVED.

"Herbals: Their Origin and Evolution," by Agnes Arber; price 10s. 6d. net. University Press, Cambridge.
"Fruit Farming, Practical and Scientific," by Cecil H. Hooper. Published by the Leckwood Press, 1, Mitre Court, Fleet Street, E.C.; price 3s. 6d. net.
"Enquire Within Upon Poultry and Egg Production," gratis and post free from the author, Ralph R. Allen, Sawbridgeworth, Herts.

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† "The Rock Garden," by Reginald Farrer; price 1s. 6d. (Present-Day Gardening Series.) London: T. C. and E. C. Jack, 67, Long Acre.

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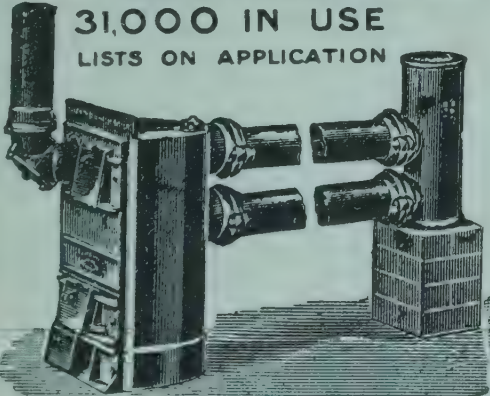
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HORTICULTURE IN 1912.

A BRIEF REVIEW.

THE present number of THE GARDEN marks the close of the year 1912, a year that has been of more than usual interest and significance to those who delight in gardening. In most business houses it is the custom to take stock at least once a year, so that those responsible for the management may know exactly how they stand. Profits or losses are calculated, failures and successes noted, and on the results thus obtained plans for the future are based. In much the same way, though with, perhaps, a less strict or accurate investigation, the wise gardener will review the year that is now about to close, and in so doing will bring to mind many lessons that have been learned in the prosaic university of practical experience. More often than not the best lessons are taught us by failures, for these naturally impress themselves upon our minds even more than do the brilliant successes that may be achieved, and goad us on, as Bruce of old, to try, try, try again.

The art of gardening can never stand still. In common with other pursuits of our daily life, progress becomes more rapid every year, progress that is leading us none knows whither. That we are but on the threshold of important and far-reaching developments is patent to all who take an active interest in the scientific investigation of plant-life. Electrification of the atmosphere, soil sterilisation, plant-breeding on Mendelian lines, the investigations of graft hybrids and plant diseases and pests, are all as yet in their infancy. What their ultimate value to the practical gardener will be it is impossible to say. Yet they must all tend to one great and glorious issue—the advancement of horticulture. The establishment by the Government of a diploma of Horticulture is, from an educational standpoint, a big step in the right direction, as are the grants from the Development Fund to various institutions for the investigation of plant diseases and pests, and the most suitable fruits and crops for various purposes.

Speaking generally, the year has been a generous one to gardeners. Crops of nearly all kinds have been good. Not for many years have there been such bounteous gatherings of Apples and Pears, while the Nut crop has been a record one. Roses have flourished amazingly, and as we write there are still a few stray blooms to cheer us. Daffodils and Tulips, Sweet Peas and Carnations, have all been present in abundance, and insect pests have, if anything, been less troublesome than of yore.

In other directions the year 1912 has been a memorable one. The great exhibition, so successfully held in the Chelsea Hospital Grounds during the closing days of May and the early part of June, will go down to posterity as a prominent landmark in the world of horticulture. Acknowledged on all sides to be the finest exhibition ever seen in this or any other country, the International Show of 1912 demonstrated to the whole world the wonderful advance that horticulture has made in this country during recent years; the impetus it gave to rock gardening alone will be felt for many years. Never before in the history of the society have the Royal Horticultural Society's exhibitions been so large and so well attended as they have been this year. In the spring the first special Daffodil show in connection

with the society was held, and it is pleasing to be able to record that this, the premier horticultural society in the world, is in a flourishing and rapidly growing condition.

The National Rose Society, too, has done good work during the year. Its three shows, held in London and Belfast respectively, revealed to the public at large the wonderful advance that the Rose has made and is still making. Numerous novelties of gold medal quality have been shown, and although some may not, under the severe test of time, justify the high opinion of the judges, others will go down to posterity and become the La Frances or Mme. Abel Chatenays of the future. The National Sweet Pea Society, which has passed through troublous and stormy times, has now entered smoother waters, and will, we hope, settle down to carry out the useful work that awaits to be done. The disqualifications for double standards caused much heart-burning at the summer show, and taught the committee a lesson which, when turned to practical account, will obviate such disqualifications in the future.

Notwithstanding the many demands that have been made on the purses of those generously inclined, the Gardeners' Royal Benevolent Institution and the Royal Gardeners' Orphan Fund have been well supported, though even now there is much more distress that needs alleviation than the funds of these deserving gardening charities will admit. Perhaps at this season of Peace and Goodwill towards all men some of our readers who have not already done so will be disposed to assist in helping, through either of the above charities, those who can no longer help themselves.

The most pleasing personal feature in the world of gardening during the year now ending was the honour of knighthood conferred on that grand old man of horticulture, Sir Harry J. Veitch. His long and strenuous life has been devoted to the art of gardening, an art that he loves so well, and it was with universal rejoicing that the news of this honour was received by all who are privileged to know him.

The foregoing are all pleasant recollections, some full of teaching and others merely reminiscent. Unhappily, in reviewing the past, the inexorable hand of Time is also brought vividly to our notice, and reminds us of many who were with us when the year commenced, but who have since passed into the Great Unknown. The Rev. F. D. Horner, the Rev. C. C. Ellison, William Baylor Hartland, Alexander Dean, William Deal, William Thomson, William Fyfe, G. W. Piper, T. Jones, George Maw and Robert Brown are among those who have made their mark in the history of horticulture, and who, alas! have fallen into a long and well-earned repose.

We close with a personal note. During the year numerous readers in all parts of the United Kingdom, as well as many countries abroad, have written us appreciative letters of our efforts to place before them each week interesting and useful information relating to the ancient craft of gardening. To all such, and also to those who from time to time have sent useful letters for publication, we tender our best thanks. That the year which is about to dawn may bring happiness and success to all our readers is our ardent wish. With them we face the future full of hope, and look with confidence for a continuance of the practical help that has been so freely and generously afforded us in the past.

GARDENING ACROSTICS.

AS announced in our issue for December 14, we are publishing a series of eight acrostics based on gardening or simple botany. Prizes of £3, £2 and £1, respectively, will be awarded to those sending in correct solutions of all the acrostics. The names of those who have correctly solved the problems will be published from week to week, and the final list of prize-winners in our issue of February 15, 1913. In all cases the Editor's decision must be final. The solution to Acrostic No. 2, which appeared last week, will be published, together with a list of those who have correctly solved it, next week, and the solution to No. 3, which is printed below, will be published in our issue dated January 11, 1913. For full rules governing the competition readers are referred to page 623 of our issue for December 14.

DOUBLE ACROSTIC No. 3.

First grown to please the taste; but now to please the eye.

The first letters form one of my old names and is suggested by the above—the last spell my modern one.

1. Two letters often reversed in the name of a well-known pendulous flower.
2. The generic name of the "Daisy Tree."
3. The man who so badly damaged John Evelyn's garden.
4. The author of a very large and famous eighteenth century Herbal; useful historically for its lists of plants.
5. An old but *difficult* Iris.
6. "Many nits, many pits"—an old Devon saying about winter. What is "nit"?
7. A new mauve Primula from Himalayan mountains.
8. The popular name of a genus of plants, some of which yield fine blue dye.
9. What promotes growth in plants.
10. Thistle-like in look—and reminiscent of the sea—I make a fine bold herbaceous plant.

Solutions of the above must be sent so as to reach the Editor at 20, Tavistock Street, Covent Garden, London, W.C., not later than January 4, 1913. Mark the envelope "Acrostic" on the upper left-hand corner.

SOLUTION AND NOTES OF ACROSTIC No. 1.

"CHINA ASTER."

* 1. C	HELSE	A
† 2. H	ELIANTHU	S
‡ 3. I	NDIAN SHO	T
4. N	OD	E
§ 5. A	LDE	R

* The Botanic Garden at Chelsea was founded in 1673. It was very famous when Miller was curator. Site of International Show, 1912. † The Sunflower is a Helianthus; so is the Jerusalem Artichoke. ‡ Indian Shot is another name for Canna—from the resemblance of the seeds to shot. It has been much improved of late years, so much so that it is now grown for its flowers, and not, as it used to be, mainly for its foliage. § The Alder grows in damp places. Its wood is used for clogs.

** Owing to the Christmas holidays, this issue had to go to press some days earlier than usual. We are therefore unable to publish the names of those who sent in the correct solution of Acrostic No. 1, but these will appear in our next issue with the names of those who have solved No. 2.

TREES AND SHRUBS.

CULTURAL HINTS ON NEW AND RARE PLANTS.

(Continued from page 635.)

TREES AND SHRUBS.

Viburnum Carlesii.—Though introduced ten or twelve years ago, this is still a very rare shrub, although the beauty of its white, pink-tinted, fragrant flowers is such as to suggest its becoming one of the most popular species. A native of Korea, it forms a shrub 2 feet to 3 feet high, with rounded, greyish leaves. Although it will grow in loamy soil, it prefers a little peat about the roots and likes a well-drained, sunny position. Cuttings may be rooted indoors during summer.

Cotoneaster bullata.—This pretty Chinese Rock-spray is of vigorous constitution and grows at least 4 feet or 5 feet high. It is conspicuous by reason of its large, dark green leaves and axillary clusters of coral red berries. A perfectly hardy shrub,

fruits, which ripen during autumn. A position in the front of a shrubbery suits it well. Any good garden soil may be used. Its long, ferocious spines are a distinct feature.

Pinus Armandi.—Lovers of conifers would do well to include this Chinese species in their collections, for it is very beautiful in appearance and as easily grown as any common Pine. Belonging to the five-leaved group, it bears some resemblance to the Blue Pine of the Himalaya (*P. excelsa*), the leaves being very similar in colour and size. A distinguishing feature, however, is its shorter and stouter cones. It is no use planting it in or about smoky towns, for, like other cone-bearing trees, it requires a pure atmosphere, and is likely to thrive best where the ground is moist though well drained.

Erica Veitchii is a hybrid Heath which was introduced a few years ago by Messrs. Veitch of Exeter. Its parents are the two South European species *E. arborea* and *E. lusitanica*, and it inherits the excellent habit and free-flowering qualities

may thrive in an inland garden if sheltered from the cold blasts of wind. The wide-spreading branches make this tree very picturesque and give to it another popular name of Parasol Pine.

The tree illustrated on this page will readily be recognised by those who visit Kew Gardens, forming as it does a landmark on the northern side of the Succulent House. It is a particularly fine example, and is said to compare very favourably with the trees in their native habitat. Attached to the tree is a tablet with the following interesting facts concerning the Stone Pine: "Native of the Mediterranean region, cultivated in England since 1548. The characteristic shape of this tree, with its wide-spreading head of branches and rugged trunk, is well known to travellers in Italy. The famous old Forest of Ravenna, which extends not far from the shores of the Adriatic for sixteen miles, consists mainly of this tree, but much of it was destroyed by the great frost of 1879. The timber is not of much value, but in Italy the tree is cultivated for its edible seeds. During the Roman occupation of Britain these seeds appear to have been imported from Italy to feed the soldiers, as remains of them are found in the refuse heaps of Roman encampments."

It is in the winter-time that the value of this and other Pines is most apparent, for at this season the dense heads of deep green foliage form a pleasing contrast to the leafless vegetation of deciduous trees. The seeds of the Stone Pine are larger than those of any other European species, and in Italy they are sold as food, to which the people show a very partial liking.

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IVY AND ITS MANY WAYS.

THINGS that are extremely familiar are often apt to pass almost unnoticed. Such a one is our common Ivy; for it is only when one gives it a little careful thought, or something more than common observation, that one perceives what a wonderful and precious plant it is, and what an important part it plays in the clothing and adornment of our winter landscape. Indeed, it may truly be said that no one kind of vegetation can do so much for us when summer-leaving trees are bare.

When one is travelling about country roads in winter, Ivy is often the only green thing to be seen. The fields are brown plough, woods and hedges are bare and leafless. Even pastures and roadsides are not green, for what short grass there is, is of a dull grey colour, and partly obscured by the buff and brown of last season's bents. But any turn of the road may bring into view deciduous trees richly mantled with Ivy, a sight that rejoices the heart of any true lover of Nature's beauties. For it is in the depth of winter that the Ivy leaves are at their glossiest and that their bowery masses not only look their best, but also give the most comforting assurance of that cosy warmth and safe harbourage so friendly and beneficent to the varied forms of bird-life.

Often some handsome arch of tree-limb bending over the roadway would pass unnoticed were it not overgrown with Ivy; but the bushily-branching dark green clothing, accentuating the tree form



THE STONE PINE (PINUS PINEA) NEAR THE SUCCULENT HOUSE AT KEW.

it is admirably fitted for the open border, and may be given a conspicuous place. Plant in good loamy soil, and increase by seeds sown in a warm greenhouse as soon as ripe.

Clematis Armandi.—This is a very beautiful species with evergreen leaves and large clusters of pure white flowers, which, individually, are $1\frac{1}{2}$ inches to 2 inches in diameter. It is a native of China, and is likely to become popular for walls, trellises and pergolas. It requires deep, rich loamy soil, and prefers a sheltered position where the branches are exposed to full sun. Propagation may be effected by cuttings, or by grafting upon roots of some other kind. The flowering-time is late April and early May. A very useful new plant.

Berberis verruculosa is a bushy Barberry growing 2 feet or 3 feet high, with shining, evergreen leaves which are dark green above and silvery beneath. Its yellow flowers are produced in pairs from the leaf-axils, and they are followed by purplish

of both. Unfortunately, it is rather tender; therefore its culture should be restricted to the warmer parts of the country. About London it thrives and flowers well, while it has also proved to possess good qualities as a pot plant.

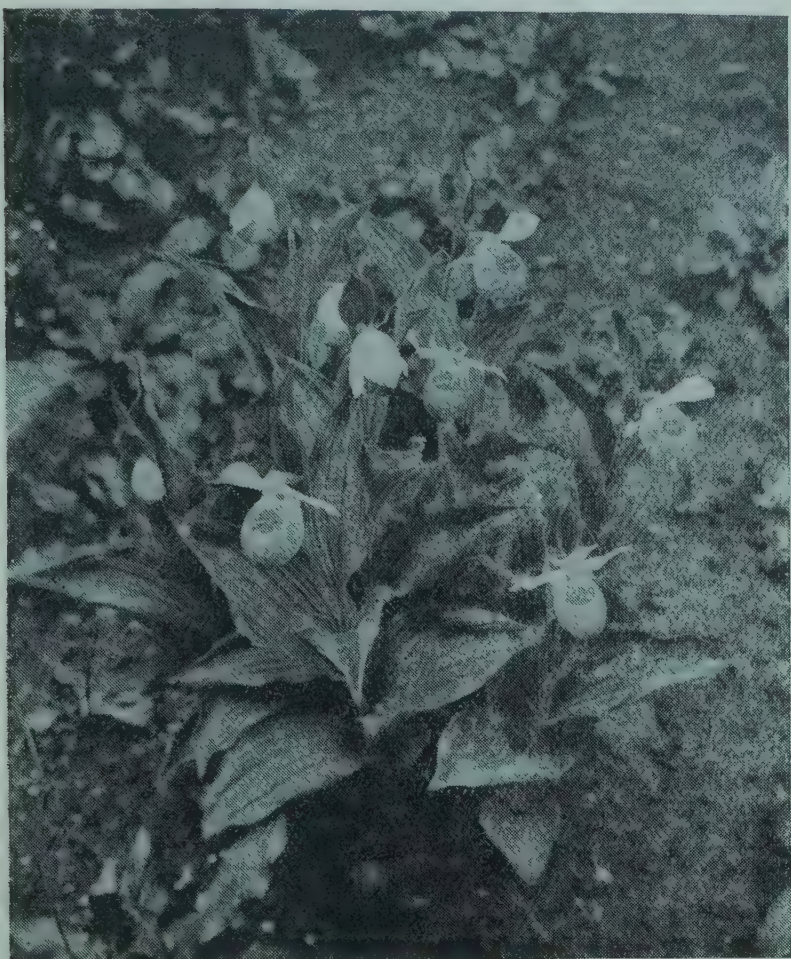
(To be continued.)

THE STONE PINE.

(PINUS PINEA.)

WHEN it is remembered that the Stone Pine is a native of the shores of the Mediterranean, it will not be surprising to note that it is less hardy than some other members of the same genus. Even in a warmer climate than ours—on the shores of the Adriatic—exceptionally severe weather has been followed with most drastic results to the Stone Pine, as the subjoined notes testify.

Pinus pinea shows a distinct preference for a sandy soil, and although a seaside tree, it



A SMALL COLONY OF THE MOCCASIN FLOWER
(CYPRIPEDIUM SPECTABILE).

reminds us how often it is that trees, and especially Oaks, assume this graceful form over roads, and thereby give the impression of protective sympathy towards those who pass by. This is the more noticeable in that the Oak is not always graceful in form like the Birch or the Ash.

The small Ivy of the hedge-bank is beautiful too, in winter, and on poor soils especially, taking on wonderful colourings of brown and bronze and red, some leaves even approaching a scarlet colour. In the trailing or creeping stage, and when it first begins to climb, the leaves are of the typical five-pointed form. But as soon as it has climbed enough to make a distinct trunk, and to throw out the woody side branches that will produce flower and fruit, the form of the leaf changes to the plain shape with pointed end, only varying more or less in width. This rule, with one exception, is invariable. As long as it trails on a bank or spreads over the floor of a wood, or only begins to climb, the leaf is wide, either five or three pointed, or, at any rate, wide-shouldered; in the mature state it has none of these leaves. The exception is where, as on walls, the Ivy is clipped every year, and is prevented from making the woody side-shoots. In this case the leaves remain of the wide shape.

Other trees—for Ivy is a true tree, having a woody stem and branches—have the same way of producing leaves of two patterns. The most familiar is the Holly, though in this case leaves both prickly and smooth-sided are seen on the same tree. The Ilex also has the leaves prickly-edged in a young state, and plain, almost Olive-like, when older.

Ivy that is growing on walls, as already indicated, usually needs cutting back every year, otherwise it will provide too great a leverage for the wind. This is best done towards the end of March, as new growth will then be quickly made.

G. JEKYLL.

FLOWER GARDEN.

THE DOG'S-TOOTH VIOLET.

THE European Dog's-tooth Violet (*Erythronium Dens-canis*), while not infrequently seen in shrubberies and semi-wild parts of large gardens, seems, at least in the suburban villa garden, almost unknown. This is particularly strange, since the plant is of easy culture, delights in half shade, and when its very decorative greenish bronze, mottled foliage rises above the ground in late February or early March, surmounted by the pure pink or pinkish lavender flowers, with a chocolate zone in their centre, it is indeed singularly attractive. On bright days the petals reflex to a considerable degree, and then display the dark bluish black anthers, which form such a strong contrasting centre to the otherwise delicate tint of the blossom.

The flowers are large in proportion to the size of the plant, being frequently 2 inches or 2½ inches across, while they seldom rise more than 3 inches to 4 inches from the

ground. Why they should have been called "Violets" has often puzzled me, as they are distinctly Lily-like in formation, which is not especially remarkable seeing that they are members of the Order Liliaceæ. I believe the name "Dog's-tooth" Violet has been conferred upon them owing to the curious tooth-like shape of the bulbs.

With me they thrive almost anywhere in the alpine garden in quite ordinary gritty soil. I have them in both complete and partial shade, also in full sun, and despite the fact that they are generally considered shade plants, my experience serves to show that they flower more prolifically if the sun falls upon them to a considerable extent, though in the alpine garden the gritty soil and the proximity of stone lumps doubtless

tend to prevent them ever getting dried up. The accompanying illustration gives some idea of a group of these charming spring flowers, which gladden us at such an early time. It also illustrates my point as to how they thrive in sunlight, at least at Woodford. The spot they occupy faces full south and receives what sun there may be throughout the day. The plants have been undisturbed for some four or five years, while the last two years especially they have been better than usual.

It is, I find, a good plan to plant them deeply, say, not less than 6 inches from the surface of the soil, often deeper; indeed, such deep planting for bulbs in the alpine garden I consider most beneficial, as it allows of surface culture for other and more feeble-rooting subjects over the place occupied by the bulbs.

Woodford, Essex.

REGINALD A. MALBY.

THE MOCCASIN FLOWER.

(CYPRIPEDIUM SPECTABILE.)

ALTHOUGH there are several of the *Cypripediums* hardy in this country, there is none more beautiful or interesting than the Moccasin Flower, an illustration of which is given herewith. Attaining a height of from 1 foot to 3 feet, it is a handsome plant, the broad, rather hairy leaves being surmounted by flowers of rose pink and white, from one to three being borne on a stem. This *Cypripedium* needs a cool, moist, shady situation, with soil, 1 foot deep, composed of coarse peat, good fibrous loam, some coarse sand and charcoal. If planted during the late autumn months, or even at the present time if the weather is mild, the plants will soon establish themselves, providing the roots were not allowed to get dry in transit. Once planted they are best left alone. The Moccasin Flower is often used for planting in damp, shaded nooks in the rock garden, a situation for which it is admirably adapted, but it can be used with excellent results in the border providing its requirements as to shade, moisture and soil are attended to. In the more open parts of Rhododendron beds we have seen it flourishing, the moist peat apparently suiting it well. It is a native of the Northern United States, and was introduced to this country in 1731, but even now it is by no means a common plant.



THE DOG'S-TOOTH VIOLET (*ERYTHRONIUM DENS-CANIS*) IN A GARDEN NEAR LONDON.

ROCK AND WATER GARDEN.

ROCK GARDENS IN THE MAKING.

(Concluded from page 638.)

The Effective Grouping of Alpine Plants.—Colonising or the effective grouping of alpine plants on rockwork is the only true way of growing them; the only effective method worthy of serious consideration; the only way, indeed, in which the operator is enabled to get the least glimpse of Nature's lavish work. At its best it will of a surety be but the veriest glimpse, yet, as such, sufficient to enthuse, sufficient to spur us on to further efforts. In Nature we see a colony or group of this or that, spreading away, carpet fashion, over soil or rock, or anon forming rugged tufts as informal as one could wish. A variation of this is seen in the individual plant stretching from rock to rock, staining it, as it were, with its flowers. Then

plants, to carry the deception further, should be high up, the finals—for the moment—seedlings of a couple of years old. There should be no abrupt endings; rather should such plants bejewel the rock crevices in diverse directions, furnishing, for example, the projecting rocky ledge and continuing stream-like into the crevices beyond. Where miniature ravines are formed with this *Ramondia* as the chief ornament, care should be taken to wedge in here and there irregular pieces of rock, a plant occurring at the upper part as though intercepted in its downward progress, with others at the sides tightly tucked against the rock, and yet another under the brow of the rock, should such exist, as though this latter had tumbled over and found a resting-place for itself. In this way not only is formality avoided, but a *multum in parvo* system is set up which makes even a small rock garden a Paradise.

Free-Growing Subjects like *Saxifragas apiculata* and *sancta merit* attention apart. These and others

plant as *Saxifraga icelandica*, the peer of the *Cotyledons*, need not always be kept under the eye; it is seen to finer effect higher up, where a horizontal cleft of rock would be dignified and ornamented by its presence. In this direction much good may be done by making the plant fit the position as though it were made for it alone. Quite worthy of special thought are

Suitable Plants for Dryish Places, those with silky or downy leafage that never appear to such perfection with the rank and file. A typical instance occurs in the case of the Cobweb Houseleek, which, if commonplace in a way, is without equal in its own particular line. Snugly nestling at the foot of a rock, or piling itself up against some imaginary inaccessible crag, or doing similar service over stony ground, it is one of the best plants I know. It pays, too, for separating into single rosettes, pricking these out an inch or more apart over the steeper inclines to presently form rivulets, white

almost as driven snow. The smaller rosettes of the plant—the chickens—do admirably for horizontal wall crevices. Then I think too little use is made of the carpet-forming *Sedums Lydium*, *hispanicum* and its variety *glaucum*, which are capable of the most charming effects. Too small for pricking out ordinarily, the only good way I know is to rub them to pieces through a sieve, and, mixing the particles with their own bulk of sandy soil, make a sowing where required. In a season or less the rock gardener may possess himself of perfect lawns of these and similar sorts, plants which are delightful for the hottest places imaginable.

In a Final Sentence a word must be said in favour of trailing plants, those like *Androsace lanuginosa*, *Thymus lanuginosa*, *Campanula garganica*, *Polygonum vacciniifolium*, *Saponaria*, *Coronilla*, *Phlox* and *Candytuft*, which have a value of their own for the purpose indicated. A word must also be said for favouring the free use of small bits of things—*Phlox*, *Campanula*, *Saxifrage* or what you will, whether from cuttings, divisions, or seedlings, since such as these, endowed with the freshness and vigour of youth, are those which, growing into patches,

mantle earth and rock in their own inimitable way.

E. H. JENKINS.

THE SNOWDROP WINDFLOWER.

(*ANEMONE SYLVESTRIS*.)

THIS is one of the daintiest of spring flowers for either rock garden or flower border. It is not difficult to see from what source its popular appellation is derived, for, before opening, the nodding white flower-buds readily suggest its English name of the Snowdrop Windflower. The expanded flowers are also white and, it should be added, they are sweetly fragrant. It flowers in April or in the early days of May, when it is seldom more than 18 inches high. A half-shaded position seems to suit it best, but it will revel in almost any soil. It is particularly free growing, and it should be allowed plenty of room, so that its roots may ramble unchecked. Considering its many virtues, this very pretty *Anemone* should be widely cultivated.



A TALL WINDFLOWER FOR THE ROCK GARDEN (*ANEMONE SYLVESTRIS*).

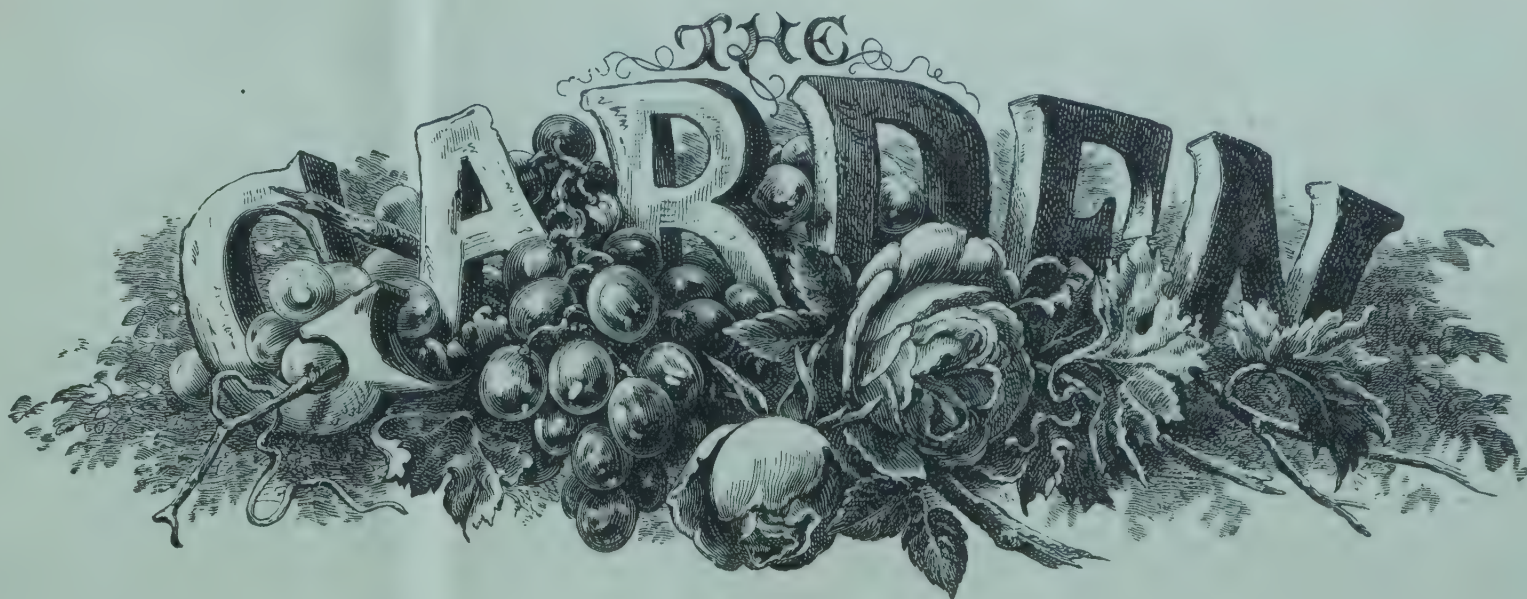
there is the free-seeding subject *Primula scotica*, or *P. frondosa*, for example, seen now in their battalions, or anon in drifts, abrupt here, trickling out in isolation there, each and all object-lessons in their way, worthy of our best attention and still more worthy of imitation. In the Friar Park rock garden there are many evidences of studious work, and the rock garden enthusiast will not go far wrong if he makes a study of the coloured plate referred to in last week's issue, and takes it so far as is possible as his guide.

A First Principle of the Plant-Grouper should be informality, since even in this the planter too frequently gets into set ways, rounding or shaping his patches of things in a way Nature never does. For example, a batch of *Ramondia* may not only trickle over the nearly vertical face of a damp rock, but spread out and beyond its base, thereby suggesting that the start was made long ago high up, and the thing we now see is the result of a few generations of seedlings. In such work the older

akin are at first carpeters of the soil. Presently, however, and with such as the first named more particularly, there is an inclination to tuftedness, which lifts the centre of the plant out of touch with the soil, death ensuing to the part if the plant is not quickly dealt with. The best way of treating all such plants is to pull them to pieces periodically, replanting little tufts of rather less than two inches across freely over any available area of ground. In this way yard-wide patches of some of the freer-flowering subjects are easily obtained. The Aizoon *Saxifragas* also well repay for separating into single rosettes occasionally, and by pricking them into well-prepared soil a greater vigour, as also freedom of flowering, is ensured. One of the best of these is *S. A. rosea*, a variety richly endowed in stem as well as in flower colour. The great Pyrenean Rockfoil (*S. longifolia*) is the finest of the genus, inimitable for the nearly vertical faces of the rock or for the sharpest of sunny slopes with rocks around and a good root-run of soil. So fine a



NATHANIEL NEUMAN SHERWOOD, V.M.H.



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— TO —

NATHANIEL NEUMAN SHERWOOD, V.M.H.,

THE SEVENTY-SIXTH VOLUME OF "THE GARDEN"

Is dedicated.

It is with the greatest pleasure that we dedicate a volume of THE GARDEN to one who has devoted a long and strenuous life to the advancement of horticulture. Head of the large wholesale seed firm of Messrs. Hurst and Sons of Houndsditch, Mr. Sherwood is one of the best known and popular men in the horticultural world. Born in France in April, 1846, he was brought to England the following year, and when old enough was sent to school at Northampton House, Denmark Hill, London, S.E. His schooldays over, he was placed under his uncle, who was at that time an engineer on the Great Eastern Railway, and for two years was taught the principles of engineering. Luckily for horticulture, this work was not to his liking, and in 1862 we find him forsaking it and entering the firm of which he was destined to become the principal. The firm had been founded nineteen years previously by William Hurst and W. G. McMullen, and was therefore at that time in its youthful stage. So assiduously did Mr. Sherwood apply himself to the business that six years after he entered it, viz., in 1868, he was taken into partnership, a happy social feature of his association with the firm being his marriage with the youngest daughter of William Hurst. In 1890 he became sole principal of the firm, a position that he still holds, though most of the arduous duties are now undertaken by his two sons, who are almost as popular in horticultural circles as their esteemed father. Owing mainly to a too close application to business, Mr. Sherwood had a serious breakdown in health in 1901, and on recovering from this was advised to go for a long sea voyage to recuperate. With this end in view he visited Canada and the United States, the Pacific Isles, New Zealand and Australia, and, greatly to the relief of his numerous friends, returned home completely restored to his usual good health. A very pleasing feature of his business career was the celebration at his charming country home, Prested Hall, Kelvedon, Essex, on June 29 of this year, of his fifty years' connection with his firm, some three hundred and fifty guests being present. Although he has given the closest attention to his business, Mr. Sherwood has not been unmindful of others, and his natural and generous activity has found an outlet in many directions. With the late Richard Dean and Mr. William Cuthbertson he was one of the founders of the National Sweet Pea Society, and in 1910 acted as president. His active association with The Gardeners' Royal Benevolent Institution has extended over a period of nearly fifty years, and it is safe to say that this deserving charity has not had a more generous supporter. In 1878 he was elected a member of committee, and in 1883 was appointed trustee, a position he still holds. In 1886 we find him presiding at the anniversary festival dinner and raising a large sum in aid of the funds. In 1897, in conjunction with Sir Harry Veitch and Mr. Ingram, he was responsible for the formation of the Victoria Era Fund of the above-named institution, and also the Good Samaritan Fund in 1899, to both of which he has been a most generous subscriber. At the annual festival dinner of the institution held in the Grocers' Hall this year, Mr. Sherwood, to commemorate the fifty years' connection with his firm, gave the munificent donation of £500 to the funds. The Royal Gardeners' Orphan Fund also claimed his attention, and for some years previous to the breakdown of his health he acted as treasurer, and has always subscribed liberally to its funds. When in 1897 the Royal Horticultural Society decided to institute a Victoria Medal of Horticulture, Mr. Sherwood was one of the recipients of this honour—an honour that was thoroughly deserved. The great International Exhibition, held at Chelsea this year, also claimed his attention, and he was an active member of the Board of Directors that undertook the management and responsibility of that most successful movement. In 1896-97 and 1897-98 he was Master of the Worshipful Company of Gardeners, one of the oldest of the City of London Guilds. Mr. Sherwood is a prominent Freemason, and has just had the honour of London Rank conferred upon him. He is a member of the St. Andrew's Lodge, and also of the Hortus Lodge, being one of the founders of the latter. In his long and active life he has witnessed many changes and improvements in horticulture, not a few of which he has assisted to bring about; and in dedicating this volume to one who has done so much for the craft that he loves, and for the alleviating of the distress of those who have fallen on harsh times, we echo the wish of his large circle of friends that he may long be spared to enjoy the fruits of his labours.

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THE GREENHOUSE.

THE CULTIVATION OF MALMAISON CARNATIONS.

THE mixture which I use for the layering of Malmaisons is coke or coal ashes and rough sand, at the rate of three parts ashes to one part sand, passed through a quarter-inch sieve. As a rule, layering begins here on or about August 1, and the work is done in a shallow frame. When the plants are layered, syringe and keep them fairly close for a week, after which admit a moderate circulation of air day and night. The practice which I adopt is to tilt the sashes of the frame on their sides, thus allowing a small space at the bottom and top of the sashes to admit air and to circulate it evenly. I like to allow three weeks from the time of layering before the rooted shoots are severed from the plants. After severing, the layers are much better left for another five or six days before lifting and potting. During the period the layers are in the frame a most watchful eye is necessary, and attention must be given to the watering, as the mixture soon becomes dry. A good supply of water may be given without any risk, and wherever soft water is available, the same should be applied.

Potting Rooted Layers.—Three-inch pots are used, and are crocked with ashes or lime-rubble. The mixture for potting consists of loam, rubble, sand, a little peat when obtainable, and a light dusting of coal soot. No leaf-mould is used, owing to eelworms being in it. The potting should be carried out to a degree of firmness. When the batches of layers are potted—and that is generally the end of the first week in September—they are stood in a cold frame about an inch from the glass, syringed, and shaded lightly for a few days if the weather is bright. I always grow the plants with a good circulation of air passing among them, the sashes being raised on blocks about three inches high.

Plants for Late Blooms.—A large batch of Malmaisons in full bloom is always required for Goodwood Race Week; that is, generally, the last week in July. This is late for them to be in flower in the South of England, and the plants require special treatment. A week after the layers are potted, a large batch is stopped hard back. Soon the young plants break into growth, and throw up from five to eight growths. The plants are generally very well rooted by the second week in October, and are then potted on into 6-inch pots. That is the final potting for the first season. They are staged in a low, span-roofed house, with a free circulation of air, and a little heat in the pipes to keep the atmosphere dry. Here the plants

remain until the end of July of the following year, when the blooms are cut for use. The potting mixture at this stage ought to be heavier than that used for the layers when potted into 3-inch pots; something like four parts of loam, one part of lime-rubble, three parts of peat and sand, and a dusting of soot. Let the soil be in good condition before starting, so that the plants may be potted very firmly, as this is one of the secrets of success. When the plants are potted firmly, they go over a much longer period after being watered, and in the dark days of winter are much better kept on the dry side. The tissues of the whole plants become quite

are kept cool, and bloom at the end of July of the next year.

Rust Disease.—Regarding the rust on the Malmaisons, I have had a great deal of trouble. Three years ago, about the last week in November, I cut away all the parts that were infested with rust. I repeated this treatment during the winter months. In March, when the days were brighter, I started experimenting with salt. First of all, I used 10z. of agricultural salt dissolved in three gallons of soft water; with this I sprayed the plants twice a week, but increased the quantity of salt each time. When the amount of salt reached 50z.,

which I dissolved in the above quantity of water, I kept to that strength; and I have found during the past three years that spraying the Malmaisons with salt water at the above strength not only keeps the plants clean, but also invigorates their growth. The Malmaison disease, or spot, may also be kept under a great deal by the use of sulphate of potash. This should be applied to the plants (when being watered) regularly once a week, at the rate of 10z. to one gallon of water. Should blooms be cut from plants treated thus and used in glasses for decorations, the water in the glasses may require more frequent changing than usual, as the sulphate that has been taken up into the blooms has an effect upon the water. When a batch of flowering plants requires pushing a little, 10z. of nitrate of soda in three gallons of water, when the Malmaisons are watered, may be used with good results. Malmaisons required for winter blooming need an airy house with a night temperature ranging from 50° to 55°, according to the weather.

A. ALLARDICE.

Goodwood House, Chichester.



A SILVER-TIPPED VARIETY OF THE NORFOLK ISLAND PINE (ARAUCARIA EXCELSA SILVER STAR). A UNIQUE PLANT FOR GREENHOUSE OR ROOM DECORATION AT THIS SEASON.

hard under this treatment, and are far better able to withstand the ravages of the rust that is so prevalent in the Southern Counties. The flowers are not so large from these stopped plants, although much more numerous.

Potting Old Plants.—Some plants may not throw up flowers, and these are the best to pot on for the second year, as they are stocky in habit. The best furnished plants are potted on into 9-inch pots the second week in August. I also recommend the staking of these plants as soon as possible, as then there is not so much harm done to the roots as when the staking is left until the spring. These plants

A great deal of interest has lately been centred upon a variety of this Araucaria having remarkable white tips to its growths, both lateral and terminal. The effect upon an otherwise normal plant is very striking, more especially as the Araucaria is so beautifully symmetrical. Looking down upon the horizontally spreading branches, the white tips at once suggest the name of the variety, viz., Silver Star.

At the end of the growing season these silvery white tips turn to the normal green colour of the plant, but with growth renewed it again assumes its silver starred appearance.

THE SILVER-TIPPED NORFOLK ISLAND PINE.

(ARAUCARIA EXCELSA SILVER STAR.)

THE Norfolk Island Pine is particularly well known in this country by virtue of its ornamental uses, either as a greenhouse or as a room plant. Unfortunately, it is not hardy, but when well grown in tubs or large pots it becomes a very desirable plant so long as it does not attain proportions too large for its surroundings.

TWO OF THE FIRST ENGLISH FLOWER BOOKS. THEIR AUTHORS AND CONTENTS.

(Continued from page 643.)

LITTLE is known of Rea beyond what can be gathered from the hints and facts which are to be found in his book "Flora seu de Florum Cultura." I suggested that the writer of his life in the "Dictionary of National Biography" was hardly justified in describing him as a market-gardener in face of the fact that he always refers, as far as he himself is concerned, to planting and gardening as a recreation or diversion. I might have added as an additional reason for my doubt that throughout the whole book he never once suggests that he has any of the plants he mentions to sell himself; but, on the contrary, seems to hint once or twice that they may be obtained in nurseries about London and elsewhere. I am sorry I am unable to offer any solution. If any readers of THE GARDEN can do so, I hope very much that they will send a note about it to the Editor who, I am sure, will only too gladly publish it. I think it will be best to say what I have to say about the "Flora" at once and leave the life of Gilbert to follow in my third article, so that it may not be separated from my description of his book.

The "Flora" was, as far as is known, the only book ever written by John Rea. Its title to fame rests on its being the first work of any importance in the English language which was entirely written from the standpoint of a garden—perhaps I ought to say "of a garden of pleasure." It is wholly horticultural and, for the first time in history, the spirit of the Herbal is altogether absent.

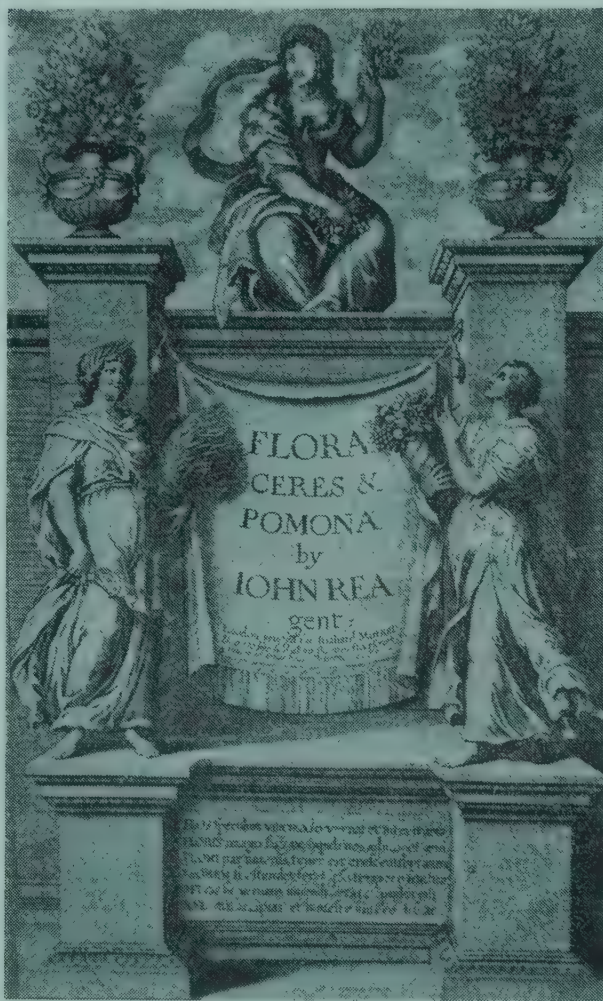
A second factor consists in its being the work of a man who knew what he was writing about. He had been, he tells us, a planter for forty years, and very many of the flowers that he mentions he had at one time or another grown himself. The first edition was published in 1665. It is small folio size and is divided into three parts: "Flora," Part I.; "Ceres," Part II.; and "Pomona," Part III. The frontispiece is not so elaborate as was then the fashion, but it is nevertheless in sympathy with the tone of the age, inasmuch as it is allegorical and represents the goddesses after whom the different parts of the book are named.

A preface to the reader; two letters to his patrons, Lord Gerard and Sir Thomas Hanmer; and several pieces of very fulsome poetry serve as an introduction to the more serious business of how to "make, plant, preserve and keep both Fruit and Flower gardens furnished with the choicest Plants, Flowers and Fruits that will endure the extremity of our long Winters, . . . how to set, make grow, increase and preserve each particular, as also for the raising of new varieties, . . . learned from my own practical experience."

Rea did not think much of the illustrations in Parkinson's "Paradisus," "such artless things being good for nothing, . . . for did his Flowers appear no fairer on their stalks in the Garden than they do on the leaves of his book, few Ladies would be in love with them, much more than they are with his lovely Picture." Accordingly he will have none, and all we find are "some Draughts for Flower gardens." The first edition had such "favourable Acceptance" that he published in

1776, with the assistance of that ingenious and worthy person, Sir Thomas Hanmer, a second impression "much amended" and "enlarged," a "multitude of rare Flowers and Fruits and divers considerable and necessary instructions and observations" being added. A third edition, or, rather, reprint, was issued in 1702. This is exactly the same as the 1676 one with the substitution of "third" for "second" on the title-page.

The first part, entitled "Flora," deals with the making and laying out a garden with flowering shrubs and trees and with bulbous and perennial plants. The opening paragraph tells us what manner of man John Rea was, and gives us the secret of his success. I must quote from it, for as it was then, so is it now, and so doubtless it always will be. "It is impossible for any man to have any considerable Collection of Noble Plants



THE FRONTISPIECE TO REA'S "FLORA."

to prosper, unless he love them: for neither the goodness of the soil, nor the advantage of the situation will do it, without the Master's affection." The results are twofold—he will take pains in their cultivation and spend money on their acquisition. A sentence which comes under the latter head would make a good motto for a nurseryman's catalogue: "To some" (obviously not to "J. R.") "he may seem no wiser that parts with forty or fifty pounds for an Horse or Hawk which must be daily fed and attended, than he that gives so many shillings for a noble Plant or beautiful Flower, that needs little of either."

One of the most striking points is the small size of the fruit and flower gardens suggested by the author: "Fourscore yards square for the Fruit and thirty for the Flower Garden will be enough for a Nobleman: but for a private Gentleman forty for the one and twenty for the other will be sufficient." Both are to be walled round,

and in the case of the latter it should be geometrically laid out. Long beds and wide walks are to run all round parallel with the walls, and in the centre there is to be a "fret," bounded with a low palisade covered with Roses, and the interior arranged after the fashion of the plans with which the book is furnished. It is to be a sort of out-of-doors conservatory, fed season by season from an outside nursery where there are hotbeds for raising tender plants and seeds, and "where many pretty Conclusions may be practised" in testing novelties. Here, too, is to be a house for "Greens and other tender plants in winter."

There are no very definite instructions about laying out the fruit garden. The walls are to be covered with "Pears, Plums, Cherries, Apricocks, Peaches, Nectarines and Vines." The ground inside is then to be covered with standard trees "at proportionable distances," betwixt which may be placed "Roses, Currans, Gooseberries, Cypress trees, Mizerions or what other Shrubs or Greens you like." There are to be beds round the walls and elsewhere (we are not told where), which may be planted with the poorer varieties of "Lillies, Martagons, Pionies, Daffodils, Tulips and other sorts" not fit to be received into the flower garden.

Of the most popular flowers of the day I will have something to say when I come to Gilbert's "Vade Mecum." So I pass on to Division II., "Ceres," which deals with "all such pretty Plants and fine Flowers as are yearly or every other year raised from seeds."

"And though those past do more excel,
Yet some perhaps, may like these well,
Since gain'd and kep't with little cost,
Two properties belov'd of most:
How they are raised Ceres will tell."

Again I must leave my comments and lists, until next week. My sand is nearly run out, and I have said but little of "Pomona":

"That you may taste and know the best,
Pomona bids you to her Feast."

An orchard is mentioned as an adjunct of a well-equipped domain, and this partly accounts, I expect, for the small size of the fruit garden. Grafting is very fully gone into. Four different ways are mentioned and described in detail, e.g., (1) Grafting in the Cleft, (2) Whip-grafting, (3) by Approach and (4) by Inoculating or Budding.

Numerous varieties of Apples and Pears are mentioned. Many of the latter, we are told, came from France. Probably the part of most interest now is that which treats of Vines. Two of the horticultural marvels of the past in Britain are the cultivation of Saffron and Vineyards. One cannot help wondering if they really flourished. Does this remark of Rea's, I wonder, let in some light upon this problem? After wishing those who plant new vineyards good success, he says, "in some years they may have some encouragement, but if the Vineyards in such places hit one year to bear grapes fit to make wine, they are like to fail three for it; if they can make good Vinegar of them it is as much as I can expect from them."

I finish this with the closing words of the book. They are simple and of interest to-day:

"And for my guerdon this all I crave,
Some gentle hand with flowers may strew my grave,
And with one sprig of Bays my Herse befriend,
When as my Life, as now my Book doth end."

JOSEPH JACOB.

(To be continued.)

GARDENING FOR BEGINNERS.

THE PROPAGATION OF LILIES.

THE Lilies, or, to give them their correct botanical name, *Liliums*, are for several reasons particularly suited for amateurs and beginners in horticulture. By far the greater number of kinds are perfectly hardy, and a dozen or more are adapted for cultivation in the ordinary soil of the small villa garden. Their propagation

are very erratic in their period of germination. Seeds of *L. giganteum*, for instance, if sown as soon as ripe, sometimes come up readily, while if stored they will not germinate for a year, or even two years, the seeds, though quite good, lying dormant in the soil.

Pricking-Off Seedlings.—When a couple of inches high, pricking-off about one and a-half inches apart to other pans or shallow boxes will be desirable. Prepare light, sandy soil for the seedlings, made up of equal parts loam, peat, leaf-mould and coarse sand. If no peat is at hand, use two parts leaf-mould. Return again to the cold frame till the following spring, or plunge in ashes outside as before. When plunged outside, the pans should be protected from frost with Bracken or light Aster (*Michaelmas Daisy*) stems. Galvanised roofing, or some similar material, is desirable over the pans to throw off excessive moisture when the tiny Lilies are resting. The next move for the seedlings will be a prepared bed of light, sandy soil in the garden. Some of the plants flower the second year from seeds, notably *L. tenuifolium*. The third and fourth years will see practically all in flower except, perhaps, *L. giganteum*, which may take a year, or even two years longer, but when it does flower, pushing up its huge spike 6 feet, 8 feet or more high, it is worth all the waiting.

Increasing by Scale Leaves.—The scale leaves of the bulbs, one of which is shown in Fig. 1, are sown thinly on the surface of pans in the same way as seeds and nearly covered with coarse sand. In due time tiny bulbils develop at the base of the scale leaves, as shown in the illustration. These push up thin grass-like leaves, and the subsequent treatment is then the same as for the seedlings. The scale leaves are obtained from the outsides of the old bulbs, a dozen or more from each. Too many must not, of course, be removed, or the parent bulb will be injured.

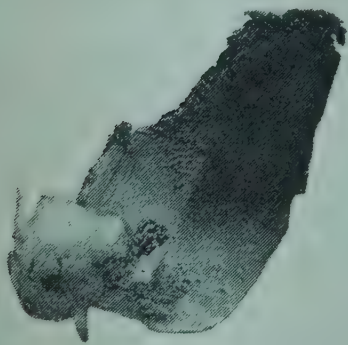
Propagation by Bulbils.—Bulbils are formed in the axils of the leaves on the stems of several species, the best-known being *L. tigrinum*, *L. bulbiferum*, *L. Brownii leucanthum* and *L. sulphureum*. Some Lilies develop bulbils, or tiny bulbs, near the base of the stem above the bulb, as shown in Fig. 2. Instances of this are *L. Henryi* and *L. longiflorum*. The bulbils should be detached from the stems in autumn and dibbled in boxes or pans of sandy soil, as recommended for pricking-off seedlings. Bulbils flower in about two years.

By Division.—The division or parting of Lily bulbs in autumn or spring is the most common method of increase. The fact that there are several bulbs in a cluster beneath the ground, such as the illustration of *L. testaceum* in Fig. 3 depicts, is apparent when several flower-stems come up from the clump in close proximity. All that is necessary is to lift the clumps, divide them up as much as possible, and replant. A thin layer of sand placed below and above the bulbs is a useful protection from excessive moisture in heavy soils.

The division of the Madonna Lily, when necessary, should be done in August. A goodly number of the sixty odd species of *Lilium* require preparation of soil and selected positions in many gardens. There are, however, a number which will thrive and flower freely in most soils in company with the Japan Anemones, Shasta Daisies, Asters and Phlox. Twelve of the best of such Lilies are *L. pyrenaicum umbellatum*, *Hansonii*, *pomponium*, *candidum testaceum*, *chalcedonicum*, *croceum*, *Martagon album*, *szovitzianum* (*colchicum*) and *tigrinum*. These will provide a succession of flowers from May to September. A. O.

THE WINTER TREATMENT OF ROSES.

Newly-planted Roses.—Especially after rough winds and in bleak situations it will be well



1.—A SCALE LEAF FROM A LILY BULB WITH YOUNG BULB ATTACHED, SHOWING METHOD OF PROPAGATION FROM BULB SCALES.

is in reality an easy matter. For raising seedlings or growing bulbils in a small state a cold frame is useful, but by no means a necessity.

Sowing Seeds.—There are several methods of increase—by seeds, scales, bulbils and offsets, or by division. Sow the seeds as soon as ripe, or when they come to hand from the dealer, in well-drained pans or pots filled with light, sandy soil. Scatter the seeds thinly over the surface and just cover with a mixture of sand and fine soil. Place the pans or pots in a cold frame or plunge them to the rims in ashes, choosing a sheltered position away from the sun and cold winds in winter. The thin, grass-like growths of the Lilies may show above the soil in some instances in four or five weeks, others will take a little longer. One or two Lilies



2.—A BULB OF *LILIAM HENRYI* WITH SMALLER BULBS FORMED AT THE BASE OF THE FLOWERING STEMS. THESE PROVIDE AN EASY METHOD OF PROPAGATION.

examine the plants, and any that have become loosened should be made firm by treading at the base. The Tea section are none too hardy in the event of severe weather, and their stems are apt to suffer near where they are worked on the stock. A little dry Bracken placed among them during cold spells will greatly protect them or soil or ashes may be drawn up in a heap around the stem, and can be removed as the conditions permit.

Climbing Roses.—These will be much improved by having a good mulch of well-decayed manure applied at the base, and this may either be worked in under the soil or allowed to remain on top. The plants on pillars or pergolas may be gone over when the weather permits, and old wood removed and the growths thinned and retied, but not during frosty weather, which is neither good for the plants nor the operator.



3.—A CLUSTER OF *LILIAM TESTACEUM* BULBS, WHICH MAY BE DIVIDED UP FOR INCREASING STOCK.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Flower Garden.

Lily of the Valley.—No garden is complete without a colony or more of this fragrant flower, and the present season, while the weather is open, affords a good time for planting. The ground needs to be well worked and enriched with farmyard manure, and if at all of a tenacious character, add plenty of road scrapings, leaf-mould or something of a lightening nature. Where space permits, a good site for making a plantation is under a north wall, and permanent beds will at this season benefit with a top-dressing of leaf-mould. The plants need shade, and will thrive remarkably well if planted under bush or pyramid fruit trees.

Agaves or Yuccas.—Where these are used for terraces, grown in tubs, care should be taken that they do not suffer from frost. The place in which they are stored need be only just frost-proof. Little water will be needed. The greatest care ought to be taken of the leaves. The spines on some are very sharp and poisonous, and are best protected by placing a cork on each.

The Herbaceous Borders.—During wet weather avoid treading on these as much as possible. The sooner the clumps are re-divided and planted, however, the better. The stronger-growing perennials will need considerable curtailing, and many may with advantage be transferred to the wild garden. Any plants that are known to be none too hardy should have a good covering of cinder ashes, and those that produce succulent shoots will also in this way be protected against slugs.

The Rock Garden.

Alpines in Pans.—Those who can devote a small quantity of glass to display these when grown will derive considerable pleasure from them, not only when in flower, but also during their various stages of growth. The pans should be well drained, filled with a suitable compost, and surfaced on the top with limestone or granite chippings. For a time, a frame where they may stand close to the glass will suffice. Water them in to settle the soil, but be sparing afterwards. Ventilate freely when the weather is mild, but protect adequately from hard frosts.

Plants Under Glass.

Cyclamen.—Assist the plants with properly-diluted farmyard manure occasionally, so as to prolong the season of flowering and also to keep them of good substance. Watering must be carefully done, and the water poured into the side of the pot and not on to the corm. When gathering the flowers, always pull them in preference to cutting them off.

Cleanliness of Plants.—Both young plants that are being grown on and those that are being used for furnishing should not be permitted to become infested in any way with insects, or at this dull season it will cause them much injury. Mild fumigations on calm nights will tend to keep them healthy.

The Shrubberies.

Planting.—While the weather permits, press forward with the work of transplanting, as frost may hold the ground tight for a considerable period. Choice specimens should be mulched and made perfectly secure against winds.

Shrubs for Winter Effect.—I have, I think, touched upon the subject of planting many of our commoner shrubs in masses for producing a warm and pleasing effect in midwinter. The beds are now revealing their beauty, and where one has the chance of doing it, irregular beds may now be formed in the wild garden or pleasure grounds, beside carriage drives, &c. Have the ground well dug or trenched, and add plenty of decaying refuse and manure. The following subjects will be found admirably adapted for such a purpose: *Spiræa Douglasii*, *Cornus alba* and the variegated form, *Salix viminalis*, *S. cardinalis* and the White-stemmed Brambles.

The Hardy Fruit Garden.

Blackberries.—The Cut-leaved Blackberry is deserving of wider culture, and may be planted in beds and allowed to trail over the ground-level or planted against trellises or fences in the garden.

The fruit of this is greatly in request for tarts and preserves, and the plants are really of little trouble. Now the old fruiting canes may be cut away and the current season's growths equalised out and tied into position or otherwise trained. Give the bed or surroundings a fork over and apply a mulch of decayed manure.

The Kitchen Garden.

Crops in Store.—These should be kept as cool as possible, excluding frost, and Onions especially should be looked over frequently to see that they are keeping soundly. A supply of Parsnips and Jerusalem Artichokes should be lifted, or a portion of the ground covered in case sharp frosts prevent digging them up.

Potatoes.—For early supplies next year the tubers for seed should be spread out singly in a light, cool structure, so that they will form good strong shoots. A few may be placed in trays and put in a forcing-house where it is not too hot, and be damped over occasionally.

Mushrooms.—Avoid too much fire-heat where this is installed, as it is fatal to their growth when abused. Keep the structure damped down, and see that the beds do not suffer by becoming too dry. Beds that have been in bearing some time will benefit by a good soaking of diluted liquid manure-water. Those out of doors must be well protected from cold.

Fruits Under Glass.

Replanting Vines.—When replanting Vines, if it is considered essential and the borders are taken out, if young canes take their place do not be too lenient with fresh material, but make up a new border not more than a yard wide after putting the drainage in perfect order, as this will suffice for the first season's growth, and an addition may then be made each year. This prevents the mass from becoming sour before the roots enter it, and is much more invigorating to the young rods. If dormant canes are to be planted, do so just before they commence to move their buds, allowing them to remain in the pots till then.

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FOR NORTHERN GARDENS.

The Flower Garden.

Belladonna Lily.—The foliage is now in course of growth, and though practically hardy, some means of securing the foliage from the effects of very severe frosts should be at hand. If not already done, stir the surface of the soil or scatter some fine soil among the plants. Ours grow in a dry, warm position.

Christmas Roses.—I do not recollect the several kinds ever to have been so early in blooming. *Helleborus angustifolius* was in flower towards the end of November, and *altifolius* was nearly past when the former commenced opening its flowers. The coloured species, on the other hand, have given fewer flowers than usual in December.

Seed Orders.—We now grow so many annuals in the flower garden, or at least flowers that are treated as annuals, that I find it convenient to order most of them before the end of the year, so as to have them delivered early in January. It must be remembered that quite a number of these, to be successful, must be sown early in the year and allowed a long period in a cool temperature to gain strength. Few of them bear a forcing heat, though a moderately high temperature may be allowed to hasten germination.

The Fruit-Houses.

Keeping Grapes.—It happens that late Grapes cannot always be cut, owing to lack of a Grape-room. The bunches may be preserved on the Vines—*Muscats* till the end of February, and late black varieties till some weeks later—but it is not to be commended, being expensive in keeping fires to dry the atmosphere, and hindering the cleaning of the Vines.

Vine-Cleaning.—This important operation should be proceeded with and finished as soon as possible. If the Vines have been free of insect pests during the growing season, nothing more will be needed than to rub off the loose bark, and clean in a more particular manner the spurred portions and scrub

them with hot soapy water. If insects have been in evidence, then the whole of the bark should be carefully scraped—not peeled—washed a few times with a strong soapy solution, and finally painted with clay reduced to the consistency of paint, to which a ninth part of tar has been added. Lime-wash all the stonework, and wash the wood-work with an insecticide. The glass should be well syringed with hot water. Remember that the Vine is peculiarly susceptible to injury from strong insecticides, even when at rest, and do not apply petroleum or nicotine to the rods.

Peaches.—Late varieties, as well as Vines, should be seen to without delay, first of all going very carefully over the trees and thinning shoots where they have been left too thickly, and shortening unripened tips to matured wood. I never find it necessary to wash or paint the wood of Peaches, but they should be thoroughly syringed or sprayed with hot water, after which lay in the shoots as straight as possible, giving each sufficient space for the leaves to develop without overlapping. Clear off the effete surface soil, and after applying some fruit manure, freshen it with some loam, as sound as can be got.

The Plant-Houses.

Rearrangements.—After the reduction of flowers consequent to the meeting of Christmas requirements, a great many *Chrysanthemums* will be thrown out and space found for *Arums* and the bulbous forced plants and *Cinerarias*, which are now fast coming on.

Dutch Bulbs.—In the course of the next week or so the bulk of these still plunged out of doors must be transferred to frames, where, for a few days, they should be covered with mats till inured to the change. Where rats are about, it is essential to protect Tulips, which is simply done by inverting an empty flower-pot over each pot. None of these will require water for some weeks.

Forcing the Above.—To succeed those already in flower or being forced, a large batch should be introduced into one of the pits with a temperature not exceeding 50°, in which they will come along very slowly and be fit to introduce to a hotter temperature as required. If space is limited, they will do very well in the meantime stored under the stages. After this date the earlier varieties of *Narcissus* will bear more heat, but, as a rule, they succeed best if not forced hard at an early stage of growth.

Gloxinias.—To flower early, a few old plants may be started, being very careful not to soak the soil in which the tubers are resting. As soon as the growths have begun to push, repot the plants, after which they will progress rapidly in a stove temperature.

Coleus thyrsoides.—The flower-spikes are now beginning to push, and a portion of the stock may be introduced into a higher temperature to hasten flowering. They like plenty of water at the root, also manure-water, so that the blue is intensified and the foliage kept a clear green.

Vegetables.

Tomatoes.—Those plants which have been grown so far in pots, with a few fruits set, may be planted in shallow beds with slight bottom-heat, in which they will now make better progress. At this time of year the stems must not be buried any deeper than they have been in the pots, and water must be administered very carefully for the next six or seven weeks. The sowing of some weeks ago should have resulted in plants ready to prick off, either into shallow boxes in light soil or singly into 2½-inch pots, the plant being dibbled in near to the side of the pot. Much heat is essential in the meantime.

French Beans.—With the clearing of houses of plants and the starting of Vines, it is usual to begin the forcing of these, where means for doing so earlier does not exist. They succeed very well in rather deep, narrow boxes, in which two rows of plants can be grown without crowding each other. One or two of the climbing varieties produce enormous crops, but it is too early to attempt these, an early dwarf variety, such as *Osborne's Forcing*, being more suitable. Currents of cold air from careless ventilation, and inefficient watering are certain precursors of red spider, which, once it attacks the plants, can scarcely be disestablished, and usually it is wise to throw out the affected plants.

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